B 1324

Library of the Medical and Chirurgical Faculty of Maryland.

Presented by

A. Hoen & Co. Baltimore.

WM. MUEHSAM,
GERMAN
Bookseller & Importer,
No. 316 W. Pratt St.,
Baltimore.
BINDING ESTABLISHMENT

MEDICAL & CHIRURGICAL
FACULTY
OF MARYLAND
LIBRARY

942

MARYLAND
MEDICAL JOURNAL.

VOL. II. BALTIMORE, NOVEMBER, 1877. No. 1.

ORIGINAL PAPERS.

NOTES ON RELATIONS BETWEEN GENERAL PRACTICE AND SPECIALTIES IN MEDICINE.

BY RICHARD M'SHERRY, M. D., PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE, UNIVERSITY OF MARYLAND.

(*Read before Baltimore Academy of Medicine, October* 16, 1877.)

The diffusion of medical knowledge, and the extension of medical or cognate sciences, have opened a field in the past few years far too great to be cultivated successfully by any one man, no matter what his abilities. Chemistry and Physiology, for example, are life studies, and the man who will master either of them, as now known or understood, will not be the skilful practical physician who is at work by day and by night at the bedside, or on the road, and who rarely has two consecutive hours at his own disposal. And yet these two sciences, wide reaching and comprehensive as they are now, are really but inchoate, and as far as we can look forward into the future, we cannot foresee the time when investigators will not find the field still open for discoveries—*nec ulli nato*, as was said two thousand years ago, *post mille sæcula, precluditur occasio aliquid adjiciendi.*

It is not much more than the allotted time of a human life since American practitioners for the most part learned the elements of their art, for it was little else, from private preceptors, and a very few text-books. In this state (Maryland) the licentiate in medicine, who had passed through no collegiate career, represented the general practitioner.

He had acquired all medicine, as he thought, when he knew something of descriptive anatomy, the first elements of chemistry, the use of a few drugs, and enough of the practice of medicine, to make a diagnosis between synocha, synochus and typhus, and between small-pox and the other form. He had a little surgery too, which was but too often rather destructive than conservative. As a general practitioner, he attended to all sorts of cases, including all the specialties as we have them now. He could bleed, and cup, and draw teeth, and set broken limbs, and deliver the farmer's wife of triplets, mayhap, to the great edification of the surrounding country. But he did too much to do everything well. In the progress of medicine, it was soon apparent that some had special gifts for surgery; that some surpassed their fellows in obstetrics; and that some, after Lænnec's discoveries, were much more skilled in diseases of the chest than others. After Lænnec, Dr. Bright brought another field under culture, and some practitioners grew famous in the knowledge of diseases of the urinary organs. And herein we see illustrations of the beginnings of the specialties. On the foundation of a good general and medical education, a man of fair abilities may make himself master of the known in any branch of medicine, but he could not master every branch even if he were to give his whole life to study, a thing impracticable when the exigencies of practice are considered, and ultimately, we only want medicine for practice.

Specialties then, though much decried, have become inevitable. A man suffering with his eyes will go as naturally to an oculist for relief, as one suffering with his teeth, will go to a dentist.

But the question arises, is all medicine hereafter to be so broken up and divided into specialties that the general practitioner, the family physician, shall vacate his place, and be seen no more? Some think so, but I cannot agree with them. The learned and skilful physician will hold his position as general adviser in all matters of health, including hygiene with medicine. He will usually stand between the patient and the specialist, giving the advantage of his knowledge to the one and to the other. He will recognize the fact that he ought not to attempt to remove a cataract, or an ovarian tumor, or a laryngeal growth,

once every five years, it may be, when he knows that near by are three skilled men who perform these operations frequently, perhaps daily. He may be as wise as, or wiser than they, but it is scarcely possible that he can operate as well. Shall he then, without future care from himself, turn over his patients unconditionally to specialists? As a rule he should not. It has been said satirically of microscopists that they can see under their lenses whatever they want to see, and it may be said that specialists are too apt to fix their attention upon matters pertaining to their specialty to observe other and sometimes more urgent disorders. I have heard of a distinguished gynecologist's operating on a patient for uterine disease while she was near death's door with a pulmonary affection, which soon proved fatal, and which he had entirely overlooked. The late Professor Frick told me he was once examiner for a London life insurance company, the agent whereof told him the company had to dissolve relations with three very eminent London physicians, men of special repute, who found respectively that nearly every applicant for insurance, had, with one, some occult gastric disease, with another some cardiac disorder, and with the third, at least incipient if not developed disease of the kidneys. The company, it seems not unwisely preferred taking some risks to refusing all applications.

Disease has its unities. The same blood permeates all parts of the animal organic structure; and the nerves of one part always acknowledge their relationship with the whole. General disease induces local developments; local diseases induce very commonly more or less of general disorder in the living economy. It is a well known fact that different symptoms come from the same lesions, while on the other hand, like symptoms may come from different lesions; moreover, it may happen, and it does happen, that various prominent organs are diseased together by dependence one upon the other, or independently. If each great organ or system is to have its special attendant, a patient with Bright's disease may want one specialist for his urinary organs, another for the heart and vessels, and yet another for the brain and nervous system, since they all become involved, which would

involve the unfortunate patient in a category of troubles exceeding his complex maladies. There must be a medical man who has scope enough to take in all the complications, even if at times he may suggest, or approve of, a special consultation. The general practitioner must be educated to a comprehensive knowledge of all the forms of disease; the specialist should also have a large acquaintance with general pathology, otherwise he will not be properly qualified to practice his own specialty.

What kind of a specialist would he be in skin diseases, for example, who was not thoroughly conversant with the functions and diseases of the kidneys, blood, nervous system, and digestive apparatus?

What kind of an oculist would he be who could extract a cataract skilfully indeed, but who did not know that ocular disease is generally due to some remote disorder, it may be to some blood contamination, or to loss of blood, or to some affection of the spinal cord which may cause lesions of the motor and sensitive nerves of the eye? The cilio-spinal tract which is capable of influencing this organ is said by Brown-Sequard to reach as low as the tenth or eleventh dorsal vertebra, and he says that sections of the lateral half of the cord from the fifth to the eleventh affect the iris like a section of the sympathetic. (*Bull—Eye lesions in affections of spinal cord. Am. J. M. S.* July 1875). And how often does it happen that amaurosis from lesions of the posterior column of the cord precedes for a long time locomotor ataxia?

The gynecologist may treat uterine disease locally, *secundum artem* with very indifferent success if he is not mindful of remote origin as when, e. g. uterine catarrh results from venous congestion due to disease of heart or lungs, or even to prolonged constipation. (Neimeyer II, 121).

The specialist in diseases of the chest may have to treat a cough where he can detect no disease of the lungs; and he may find that the cough comes from disordered stomach and digestive organs, or merely from nervous disorder. I attended two years ago a young lady with a most singular rhythmical cough which came and went in peculiar paroxysms. It may have been a form of localized chorea. The function of the eight pair of nerves

was remarkably disordered, with great perturbation of the delicate muscles of the larynx, but there was no appreciable organic disease. She is now well.

Marshall Hall says, that a simulated *pleuritis* or *carditis* may be due to intestinal irritation, which may induce symptoms in his arrangement of 1, arachnitis; 2, pleuritis; 3, carditis; 4, peritonitis. Every practitioner can confirm this statement.

The specialist in digestive disorders may be called to treat a pulsating liver, while that organ and all the chylopoietic viscera will disclose to him no disease whatever. Let him examine the heart however, and he will almost surely find regurgitation through the tricuspid orifice. Several observers. Mr. Shaw, Berard, Dr. Frederick Taylor and others have elaborated the relations between the hepatic and cardiac circulations so far as to show that the *vis a tergo* is not adequate to take the portal blood through the liver to the heart, but that an auxiliary suction force is required. This auxiliary force appears to be found in the function of respiration. When drawing a deep breath, the area of the space in which the heart is situated is enlarged. The pericardium is attached in such a manner above to the vessels at the base of the heart, and below to the convex surface of the diaphragm, that its parieties are stretched and held apart by each descent of that great muscle of inspiration. As a consequence of this increase of size in the cavity of the pericardium, there is a tendency for a vacuum to form in it; hence the blood accumulated in the venous trunks close to the heart, rushes to the right auricle with accelerated force. On the other hand, as soon as expiration follows, the blood in these venous trunks is either simply retarded, or regurgitates according to the force of the expiration. (*Monthly Abstract*, June 1876). Disturbance of this physiological order is the usual cause of pulsating liver, and it may not be amiss to suggest here that deep inspirations taken, as in active exercise, by promoting the portal circulation, must act as a wholesome stimulus to hepatic function.

It is needless to say how often gastro intestinal disorder is due to some very remote disease requiring the attendant's first care. A married woman called upon me some time ago to treat

her, or to cure her as she vainly hoped, of perpetual vomiting. Like the famous case of the woman with the issue of blood, she spent a great deal of money among many physicians without any benefit. My success was not greater than that of my predecessors; indeed, she died on my hands. With perpetual vomiting there was no evidence of gastritis, there was no tumor, no tenderness, and there was, for that matter was investigated, no uterine disease. The vomiting was without effort and without nausea. The one positive symptom of disease was a sense of distress about the occiput, and this she only mentioned when questioned. Some amelioration of symptoms followed the use of derivatives to the nuchal region. Withal, she died, and died suddenly as from effusion about the base of the brain. In this case treatment for gastric disease was futile or worse. If Archeus was here dethroned it was from revolt in the province of the encephalon, and not through domestic insurrection.

It is in such cases as the one just noted that, as Da Costa says, error may readily happen from overlooking the brain trouble on account of prominence of gastric symptoms.

And yet, withal, as showing how complications may run, Brown-Sequard asserts that after injuries of the corpus striatum, crus cerebri or spinal cord, softening and ulceration of the gastric mucous membrane occur; hemorrhages generally after injuries of a certain part of the pons varolii.

On the other hand, the specialist in nervous diseases will be quite at fault if he does not appreciate the origin of many of them in remote visceral disease. Just as surely as diseases of the nervous centres are productive of visceral congestions and hemorrhages, just so surely do primary visceral diseases induce cerebral or nervous disease, by reflex action or otherwise. Thus we have either of two series: first, symptoms in the viscera during the occurrence of brain lesions; or, second, symptoms of brain affections during the existence of visceral diseases, as a consequent, not a mere coincident element, from which we may understand that it is always an irritative agent which is at work.—(Dr. Dupuy Med. Record).

The specialist in nervous diseases would find himself not less surprised than the general practitioner at discovering in a patient dead of rheumatism and pneumonia as obvious maladies, the pia mater of the whole brain strongly congested, thickened and covered with a fibrino-purulent exudation of a greenish yellow color, filling the subarachnoid space. Similar appearances were observed in the internal aspect of the cerebral hemispheres, on the upper surface of the cerebellum, on the medulla oblongata, and the upper part of the spinal cord. They were found of slight intensity in the cervical portion of the cord, but became more distinct in the dorsal and lumbar regions, and were most intense in the cauda equina, where a large collection of fibro-purulent fluid was found between the arachnoid and the pia mater. There was some exudation along the choroid plexus in the lateral and third ventricles of the brain.

Is not this classical cerebro-spinal meningitis? And what symptoms had indicated these morbid changes? Obscured consciousness, intense headache, jactitation, muscular paralysis, painful sensations in the extremities, cutaneous hyperæsthesia, or anæsthesia? Not one of these symptoms was present during the ten days that this patient was in the hospital preceding his death. This case is recorded by an Italian physician as having been under his observation. The autopsy confirmed the diagnosis of pulmonary and cardiac disease; but the explanation of the cerebro-spinal lesions is left to exercise the ingenuity of medical reasoning.

The illustrations which I have just been using tend to show how the various morbid conditions which afflict our race, run together, overlap, or interblend with each other. I will not use more, but before coming to a final argument I wish to make a few passing remarks on a very delicate subject, that is, of turning obstetrics and diseases of females, over to female practitioners. There seems to be some *a priori* reasoning in favor of this course, but I believe it to be fallacious.

The practice of obstetrics requires, besides skill and coolness, very considerable physical strength, more indeed than women are likely to possess. It is true a great many cases could be left

to nature, or would require very little assistance, such as might readily be given by a female attendant, but no one knows beforehand what exigencies may occur in any case, and the attendant should *always* have the qualifications ready for any emergency. Physical strength and power of endurance are very important qualifications. It is a very exceptional woman who can carry a man's burden on her shoulders. *La femme est une malade*, says a French philosopher, and his assertion approaches the truth when applied to the highly refined and cultivated woman.

Prolonged preparatory and professional education, to say nothing of her dwelling for a time, like a ghoul, in that chamber of horrors which is an inevitable ante-room to the great temple of medicine, our Asclepion, would add nothing to her own health, or strength, or physical endurance.

Moreover, the general fact is, whatever may be made of it, that ladies have far greater confidence in men than in women in such cases. They would always prefer in times of difficulty and danger to be under the care of men, and no man can be a thoroughly capable obstetrician except through constant practice. The modern science of obstetrics, in short, requires male practitioners with all the endowments that nature, study, and hard earned experience, can give them, and it will doubtless remain in their hands.

I can speak thus the more freely because in so far as my own sentiment is concerned, I would be pleased to relegate all the onerous and arduous practice involved in gynecology and obstetrics to special practitioners.

From what has been said it may be readily understood that general practitioners and specialists must in the future maintain definite relations with each other. They must be coöperating, not antagonistic powers. The general practitioner cannot be expected to know all the advances, and all the details of every branch of medicine. It was remarked by Dr. Johnson that the human mind is so limited that it cannot take in all parts of a subject. This is a truth or a truism, which readily comes home to us. No one man knows all the known in medicine in its entirety. But it is so now and it will be to the end, that the general

practitioner will take more comprehensive views than the specialist, and that he will be better qualified to take charge of the general health of the community. He will take in disease in its complex forms, and will usually see it through its various phases. When called to a case of diphtheria, for example, he will not at the end of a week turn it over to a specialist in urinary diseases, who at the end of another week might have seeming occasion to turn it over again to a specialist in nervous diseases. Such proceeding would be irrational. The general practitioner must himself foresee these occasions, and be prepared for them. But yet it may readily happen that he will be at a loss in diagnosis or for treatment, medical or surgical, in some of the refinements where there is obscure affection of some particular portion of the organism, and where the acquirement of a capable specialist would be more exact than his own. In such cases he very properly takes counsel with the specialist. In consultation the one will give wider general knowledge, the other more accurate special knowledge. Specialists are and ought to be pioneers in their respective branches, and any progress they may make, goes shortly to the general advancement of medicine.

A competent specialist should have passed over the whole field of medicine both in study and practice for a term of years; and the general practitioner must keep up a fair acquaintance with all specialties, since there is no exact line of division between specialties and general medicine. In those countries where some have been educated for surgery and some for medicine as distinct professions, it has been found that such distinction in education is an error. The man whose life is to be devoted to the care or cure of human maladies, must not be half educated, whatever may be his destined career of practice.

Whatever may be the case in cities, our brethren in the country must necessarily be general practitioners; but they eminently, will find their labors and responsibilities greatly relieved by the aid they can get in peculiar cases from special consultations in the cities.

In consideration of the necessities and the status of medicine at this day, the following conclusions are now summarily presented:

1. The general practitioner of medicine and surgery is the principal and most important representative of our profession. He ought to be well informed in all the so-called specialties.

2. The rapid progress made in many various and devious branches of medicine cannot be followed in all details by any one practitioner; some therefore may properly become specialists. The qualified specialist should be well informed in all branches of medicine.

3. General and special practitioners, thus properly qualified, should in all suitable cases mutually give and take counsel with each other, and act as collaborators.

4. All regular physicians who are governed by a common code of ethics belong to the venerable family of the Asclepiadæ, and should make a frank acknowledgement of fraternity. And—

5. As brethern we should use all proper means to promote harmony and friendly relations among each other, and to do what lies within us for the common good of the profession and of humanity.

TRANSLATIONS.

Examination of the Genital Organs of an Hysterical Patient. By De Sinèty, (*Archives de Physiol.* 1876).—The examination had two interesting features The patient had an ovarian tumor of the right side. At the autopsy the right ovary was found at a greater distance from the uterus than the one on the opposite side. It was much more voluminous, without presenting any special lesions. The ligament contained a supernumary ovary. The young woman died at the age of 21. Her periods were very irregular during life. Her death took place immediately after a menstrual flow. At the *post mortem* examination a large number of follicles were found in the ovaries. Follicles already described by Slawjansky and De Sinéty, which degenerate and disappear without having discharged their ova. These ovaries contained no Graafian follicles nor corpora lutea. This observation confirms those already published by De Sinèty and other authors in regard to the independence in certain conditions of the two functions of ovulation and menstruation. (See also The Ovulation Theory, by Reeves Jackson, *American Journal of Obstet*).

Politzer's Method Modified by Roustan.—By Horteloup, (*Societe de Chir., page* 685, 1876).—Horteloup says that this method invented by Roustan is but a modification of that of Politzer. The obliteration of the posterior passage is obtained by elevating the soft palate until it assumes a horizontal position. This is accomplished by movements of deglutition. These movements are of very short duration and soon become very fatiguing and Roustan proposes to replace this exertion by movements of expiration. This plan has the advantage of being executed by the patient only. For this purpose a rubber tube is employed, one end for the mouth and the other to be inserted into the nostril. The nares are kept closed by the thumb and index finger, and then it is only necessary for the patient to blow into the tube to force air into the nasal fossæ and from there into the Eustachian canal.

Syphilitic Origin of Lepra. By Huillet, (*Nice Medical*, 1877). The author is disposed to admit the syphilitic origin of leprosy for the following reasons:

Almost all the individuals that he saw in Pondichery affected with this malady presented undoubted signs of syphilis. Syphilis is wide spread in the East Indies and the people take such poor care of themselves that the disease often makes fearful ravages. To sustain his opinion he cites the case of a woman affected with leprosy, whose father being syphilitic, impressed all the children with hereditary syphilis. For that reason the author inclines to the idea that leprosy is a degenerated form of syphilis.

Treatment of Synovitis Hyperplastica Granulosa by Injections of Carbolic Acid.—*By J. Schmidt*, (*Centralbl. fur Chir.* No. 35, 1876).—The want of success of these injections in the treatment of white swelling is principally due to the fact, that in cases submitted to this treatment suppuration had already commenced; besides the injections were not continued long enough.

At Grieifswald, says Schmidt, this style of medication applied to non-suppurating white swellings, has always given excellent results, and to encourage others in the use of this mode of treatment he cites six cases of the knee and hip which terminated in recovery.

Observations by Mallow on Cl. Bernard's Method of Anæsthesia.—(*Arbeit aus dem pharmac. Saborat. Zu Moskan, by Sokolowski*, 1876).—Nussbaum favored the method of hypodermic injection of morphia during chloroformisation which prolonged the anæsthetic action, but did not remove the dangers of the two first periods of inhalation. Surgeons have uniformly condemned this method. Bernard's plan consists in the use of the hypodermic injection immediately before the exhibition of the chloroform. Mallow has made twelve personal observations in which *mixed* anæsthesia has been most successful. Chloroform administered alone first irritates the mucous membrane which produces reflex action and the patient is asphyxiated to a certain degree. It is by reflex action, that the respiratory and vaso-motor centres are paralyzed, that the energy of the heart is weakened and that syncope is produced. If this be true the role of morphia is easily understood. It deadens the sensibility of the mucous membrane, no reflex action is produced and the period of excitement is therefore suppressed. Asphyxia and syncope are not produced by this process and for the following reasons: Anæsthesia takes place so rapidly that the doses of chloroform can not be large. Morphine excites the cardiac centres, diminishes the caliber of the blood vessels, elevates the arterial tension and has an inverse action to that of chloroform.

In summing up, morphia diminishes the cerebral excitability, anæsthesia takes place rapidly, there are no dangerous symptoms, no paralysis of the heart, no respiratory troubles and no fall of temperature. Sleep lasts longer, and the after effects are less disagreeable than after chloroform alone.

J. D. F.

REPORTS OF SOCIETIES.

MEETING OF THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.

The eighth annual meeting of the American Association for the cure of Inebriates, met in Chicago recently, the president Dr. T. L. Mason, of Brooklyn, N. Y., in the chair.

The secretary read a paper on "The Responsibility of the Production of Opium Inebriety," which had been prepared by Dr. J. B. Matteson, of Brooklyn.

The writer set forth that, within the last two or three decades, the consumption of opium has increased far in advance of its direct therapeutical need. The question to consider was whether patients indulged in the use of opium for the purpose of obtaining transient happiness or oblivion, or whether once ordered by the physician and continued indefinitely, its use caused such mental and physical changes as to engender a constant demand for it. The vast preponderance of testimony was to the effect that its use was often entered upon unconsciously, and continued until it became a physical necessity. High authorities concur that the opium habit has its inception in prescriptions ordered by physicians. It is, therefore, advisable not to recommend opium continuously for the purpose of allaying pain, especially with patients of a nervous temperament, lest the physician might become the innocent cause of setting the spark to the fire that may only be extinguished with life. The writer held that fully 80 per cent. of the cases of opium inebriety in this country may be traced to opiate prescriptions. Physicians are too ready to prescribe opiates for the relief of pain or insomnia, and too careless about seeing that, when the strict therapeutical necessity for its use has been fulfilled, the use be discontinued.

Dr. Widney said that in his experience South during the war, when opium was very scarce, the persons who had been in the habit of using it turned their attention to alcohol as a substitute. In one case a woman who had been in the habit of taking as high as twenty grains of morphine a day, drank a quart of whiskey without becoming intoxicated. Persons could use alcohol for a longer time than they could opium without becoming dependent upon it. He believed that legislation was necessary for the control of the sale of opium and its preparations.

The Rev. John Willet believed that the charges against the doctors were too sweeping, and that they were less responsible than the druggists. Great difficulty existed in reaching the facts, owing to the utter want of veracity on the part of the patients. No opium eater, in his experience, ever told the truth in regard to the origin of the habit in them. A whisky drinker would lie, but an opium eater would keep on lying all the time. The habit arises insidiously and by accident more than in any other way, and physicians, in order to guard against

the danger, should watch their patients, and substitute other and harmless prescriptions.

Dr. Earle concurred with the last speaker that physicians were not so much answerable as were the druggists. They filled prescriptions without the order of a physicians, and he believed that under the law they were allowed to hold prescriptions as private property, and might continue to hold them indefinitely. This was all wrong and legislative restriction was needed. He did not believe that the opium habit or the whiskey habit were diseases.

Dr. Day of Boston had considerable experience of such cases, and considered that the origin of the habit was more often accidental than otherwise. He blamed the druggists for the indiscriminate filling of prescriptions. He also recommended that special care should be given to the control of the sale and use of opiates. The opium habit was a most fearful disease.

The Chair considered the subject a most important one. The importations of opium are largely increasing every year, and the effect of its use on the race is very profound and wide-reaching. Somewhere a great responsibility existed, and he held the druggists most culpable. Many of them were as directly interested in the sale of opium and morphine as the saloon keeper was in selling liquor.

The Rev. John Willet followed with an elaborate paper on the diseased appetite of the drunkard, and its cure. Mr. Willet utterly disowned the miraculous-cure theory advanced by the new order of religio-temperance teachers, and claimed the recovery of the drunkard from his degraded condition must be attained by human means. He invited the "deluded zealots," who insist that the drunkard's habit and appetite can be cured by miraculous interposition, to visit an inebriate asylum and experiment on its inmates.

MEDICO CHIRURGICAL SOCIETY OF MONTREAL.

(*Canada Medical Record, September.*)

This Society met August 4th, the president Dr. Fenwick in the chair.

Dr. Finnie then read a paper on "Sulphur and Sulphurous Acid in the treatment of Diphtheria." It was generally believed now that the

diphtheritic membrane was fungoid in character. It had occurred to him that anything which killed this fungoid would arrest the disease —sulphur was such a remedy. The present epidemic had prevailed from November of 1876 to the present time. Till January, he had been using tr. ferri. mur. and acid carbolic locally, and quinine and iron internally, with nourishing diet and stimulants when indicated, with little success. In January he began using the sulphur treatment. The treatment consisted in burning sulphur in the room for one or two minutes every two hours, giving sulphur grs. x. every two hours internally. and applying sulphurous acid locally. He cited a very severe and hopeless case which he had been treating in the old method; he began the sulphur treatment, and in 16 hours there was marked improvement and the patient recovered. The sulphur sometimes produced a relaxed state of the bowels in from 12 to 24 hours when it was necessary to lessen the dose. He had at that time treated 16 cases by that method, 11 under 10 years of age, 3 from 12 to 15 years and the rest adults, and since January he had treated two more cases in the same way, without a fatal case, and among them some had been very severe. He was satisfied of the great superiority of this treatment above all others, and strongly urged his confrères to give it a trial.

Dr. Reddy did not endorse all that Dr. Finnie said. He had tried the sulphur treatment, but combined it with the use of ammonia and iron internally.

Dr. F. W. Campbell asked what was the effect of the membrane? He had seen the membrane reproduced after peeling of, and the symptoms reäppear. There was a great difference in the severity of cases; a great many cases of inflammation of the tonsils with exudation of lymph were mistaken for diptheria. In true diptheria the membrane was dark brown and leathery, and there was enlargement of the submaxillary glands.

Dr. Cline gave the statistics of the results of the treatment of diphtheria in the Montreal General Hospital. Out of twenty-seven cases there have been eight deaths, giving a mortality of 29 per cent. These cases had been treated on the old plan, ammonia and iron and sometimes chlorate of potash internally, and locally disinfectant gargles aud washes of carbolic acid, etc., with the exception of three or four cases which had been treated by the sulphur method. The ages of the fatal cases were two 2 years, two 3 years and the rest 1, 10, 6, and 24.

Dr. Ross remarked that all the cases treated in the hospital were of a severe type, mild cases were not generally sent to hospital. It was necessary to have some idea of the severity of the cases reported in order to form any opinion as to the result of different modes of treatment. He asked if any local application of heat or cold had been used. He had lately been using ice internally and externally, and preferred it to heat. It appeared to check the swelling of the glands.

Dr. Osler, at the Boston Medical Club, had heard a paper read on the treatment of diphtheria. A great number of specifics had been advocated by different men, all of whom had reported a large number of cases attended with extraordinary success under their special mode of treatment. One man had reported 100 cases without a death.

Dr. Fenwick did not think that all cases of true diphtheria were attended with enlargement of the glands. Had seen very severe cases without such enlargement. Admitted that it was present in the majority of severe cases. The membrane was leathery, greyish, and about ⅛ inch thick.

Dr. Finnie admitted the difficulty sometimes of distinguishing tonsillitis from diphtheria, yet was confident that none of his cases were cases of tonsillitis. Cited one case in which he was enabled to disprove diphtheria by the presence of a diphtheritic membrane on an abraded surface on the ear. He had used ice, but given it up on account of the discomfort its use generally produced. The local disease was not always proportionate to the severity of the general symptoms. The epidemic had been of a severe type, and out of 38 cases which he had some were very severe. Had great confidence in the sulphur treatment.

MEETING OF THE CLINICAL SOCIETY OF BALTIMORE.

The first meeting of the Clinical Society, since the adjournment for the summer, was called to order on Monday, October 1st, at 8-30 p. m., with the vice-president in the chair. Reports from the various committees showed the society to be in a most flourishing condition.

There had been a large attendance during the preceding winter and great interest had been shown by the members. The absence of any discussions on "medical etiquette", an expression common in the mouths of suspicious practitioners, which is a feature of the society.

leads to freedom of thought and harmony in debate; while the moral tone of the society is not lowered in the least.

There was an election of officers for the ensuing year which, after a good deal of balloting, resulted as follows: President, Dr. F. E. Chatard; vice-president, Dr. I. E. Atkinson; corresponding secretary and treasurer, Dr. J. Shelton Hill; recording secretary, Dr. R. B. Morison; executive committee, Drs. Tiffany, B. B. Brown and Theobald.

Dr. Tiffany gave the history of two cases under the head of "Notes on Jaborandi." The drug was given first in a case of puerperal eclampsia, and second in a case of cirrhosis of the liver. An infusion of the dried leaves was made ʒj to fʒiv and the whole given at once.

A decided effect was noticed in fifteen minutes and at the end of an hour there was general abatement of symptoms, reduction in number of respiratory movements, eyes running freely and large flow of saliva. Perspiration very profuse, more flowing however from the posterior part of the body than from the anterior, where drops could be seen to "come out" as it were and run off. In answer to questions Dr. Tiffany said the convulsions in the first case were not prevented, but markedly effected for the better, being less frequent and severe.

Dr. Atkinson had seen photographs shown him in New York, by Dr. Piffard, of a case of ichthyosis of the leg in which jaborandi had been used. The difference in the appearance before and after the trial of the drug was great; there was much improvement. The action of the drug was mechanical causing the perspiration to flow freely over the diseased parts; but the treatment was not probably curative.

Dr. Tiffany thought the alkaloid of jaborandi, pilocarpin, might be used to advantage in eclampsia. Dr. Hill thought such a large quantity as fʒiv would be given with great difficulty in many cases of eclampsia.

Dr. T. R. Brown showed specimen of a growth removed from the vagina of a little girl 18 months old. The little patient had been sent to him from the country in August, when he had noticed several bodies projecting from the ostium vaginæ each having a distinct pedicle. Having twisted these off a finger was introduced into the vagina which was found to be filled with numberless growths lining the whole of the inside. These were torn off by the finger and the vagina left entirely clear of them. The patient was sent home and

since then a body much larger in size than any of the others had been removed by the physician in attendance, besides smaller ones. Dr. Brown judged from the appearance of the largest growth, that it might be a papilloma though no thorough examination had as yet been made with the microscope, the specimen not being sufficiently hardened.

An interesting point in the case was that preceding the appearance of these tumors, there was regularly a flow of blood much resembling the menstrual flow, accompanied with pain and vesical tenesmus. At present the child is doing well.

Dr. Theobald showed a lachrymal probe, the largest of his new series, No. 16, which is 4 mm. in diameter. During the summer it had been used frequently and was a great success. Tieman in New York had written that the new probes were often called for.

R. B. MORISON, Sec'y.

SELECTIONS.

ON CERTAIN MANIFESTATIONS OF GOUT, RHEUMATISM, AND RHEUMATOID DISEASE.

BY J. A. MENZIES, M. D. ED., F.R.C.S. ED., NAPLES.

From the number of cases which have come under my notice in the last few years of patients who have been, or are, sufferers from certain forms of uterine disease, and the connection which I think I can establish between them and rheumatism, gout, and rheumatoid disease, I am inclined to believe that the importance of heredity and diathesis in these complaints is either overlooked or underrated. Dr. West has pointed out that there is a troublesome form of gouty dysmenorrhœa, and from what I have seen myself, the gouty, rheumatic, and rheumatoid diatheses are also frequently associated with metrorrhagia and menorrhagia. I need not allude to the well-known connection between gout and asthma and bronchitis further than to say, that in female chronic bronchitic patients I have found that they have generally suffered from dysmenorrhœa, and that the bronchitis has become estab-

lished after the cessation of the catamenia. On the other hand, those who have suffered from metrorrhagia seem to incline to articular disease at the same period. But this is a question which can only be settled satisfactorily by those who have had such patients under observation for considerable periods of time, and who can speak positively, not only as to the actual disease, but also as to the heredity.

Many of these patients accept their sufferings as a matter of course, and take no steps whatever to have them alleviated. In a case recently under my notice, a lady asked me to prescribe for a friend with whom she was travelling, telling me that she was so alarmed at her state that she could not exist longer without having advice, although she knew that the step she was taking would certainly lead to a serious disagreement with her companion. And in very many other cases I have found the same carelessness or positive aversion to seeking advice. There is reason also to believe that some sufferers from dymenorrhœa are treated for stricture of the cervix and flexions, to which latter, perhaps, undue importance is in some cases attached. If the cause of the dysmenorrhœa is mechanical, mechanical and surgical treatment will be of service, but only in this case.

Some of these patients are of a peculiar temperament. They are either in the most exuberant spirits, or in the deepest despondency. They seem hardly to know what the happy medium is. Others, from having found relief from their agony by the use of stimulants, have gradually acquired, if not actually, the habit of exceeding, at least, an inclination to indulge in more stimulant than is usually taken by ladies. And to this cause, and the peculiar temperament before mentioned, I am inclined to attribute a considerable portion of the excess in stimulants which we know is so prevalent at the present day in females of all ranks of life.

Generally, they are childless, or their children are very few. In some, as the disease progresses, miscarriages occur, and all sorts of reasons may be assigned as a cause. One cause of sterility is said to be an acid condition of the vaginal mucus, which it is only reasonable to suppose will be found in these patients. Another cause may be the condition described by Dr.

Macrae of Penicuik, in the January number of this Journal; and a third, a condition of chronic endometritis.

It is not unreasonable to suppose that the hyperacidity of the secretion may cause spasmodic stricture of the cervical canal, and also very great suffering, without stricture, in some cases. It is remarkable that several mineral springs, of undoubted efficacy in rheumatic and gouty cases, enjoy a reputation for the cure of sterility.

A few cases out of many which I have observed will show clearly enough the point which I am trying to establish. The first is interesting as showing the connection with uterine disturbance, bronchitis, and arthritic disease. Unfortunately, I find no reference in my notes as to the state of the catameuia previous to cessation.

1. When a lady who had passed the critical period came first under my notice, I was told that she was suffering from phthisis. On examination, I found nothing that warranted the belief. There was a history of severe hæmoptysis, which, on investigation, I found had followed immediately after the sudden cessation of the catamenia, caused by a severe mental shock. There was severe pain localized about the outer third of the clavicle, and great flattening of that side of the chest as compared with the other. During my examination, I was struck with a creaking and grating sound, which, on inquiry, I was told proceeded from the shoulder-joint, and I soon had proof that it could be heard a long way off. The joint had been painful and useless for a considerable time, which quite accounted for the flattening of the chest, owing to the waste of the pectoral muscles. Bronchitis was well-marked; and in addition, she suffered frequently from congestion of the kidney. The pain was either sympathetic from the shoulder-joint, or from a periostitic inflammation of the part. Dry cupping and blistering had been freely employed, but had not done much beyond affording temporary relief. Iodide of potash, however, and cod-liver oil, ameliorated her condition; but it was far too late in her case to attempt anything like curative treatment. There was said to be heredity of gout and phthisis.

2. A married lady—no family—has a tendency to gravel, very

bronchitic, suffered from dysmenorrhœa before the cessation of the catamenia.

3. A married lady, very rheumatic, and has had gravel; has had several miscarriages without apparent cause. Has three children alive, but appears to have an increasing tendency to miscarry as she grows older. Suffers much from bearing-down pains at times. I have treated her for endometritis depending on rheumatism, with marked benefit. Father very rheumatic.

4. A married woman, separated from her husband, very rheumatic; *pari passu*, with the increasing rheumatism, dysmenorrhœa appears.

5. A widow lady without children, formerly metrorrhagic. On cessation of the catamenia, suffered from arthritic disease of both knee-joints, the cartilages of which are now probably almost entirely absorbed.

6. A young lady, unmarried, very rheumatic, subject of occasional hysterical epilepsy, bronchitis, and metrorrhagia.

7. An American lady—had perpetual miscarriages, and during a period of ten years only menstruated once. Her adviser in America, by certain agents which I do not care to describe more particularly, effectually restored the secretion, and prevented conception. She had previously had children, some now living. Is a severe sufferer from chalky deposits in the hands, and cardiac affection. Heredity rheumatic.

8. A young lady, unmarried, was much disfigured by eczema of the face, which disappeared under treatment. Has since suffered from gravel, and is metrorrhagic. Had hip disease in childhood.

9. A lady, who suffered severely from dysmenorrhœa, told me that all the ladies of her family were similarly afflicted. She denied heredity of gout or rheumatism, but confessed to having had rheumatic pains in her wrist, and her knuckles were very much enlarged. She also suffered from irritable bladder.

10. A young married lady, dysmenorrhœic. After several years of marriage, no children. Gouty heredity.

11. A married lady, dysmenorrhœic. After several years of marriage, a still-born child.

12. Two ladies—aunt and niece. The former a widow, metrorrhagic and dysmenorrhœic, no children. Says that no member of her family ever escaped gout. Tendency to bronchitis. Niece metrorrhagic only.

I have on two occasions been called to see young ladies who were almost cyanotic in paroxysms of asthma. One of these was a dysmenorrhœic, with gouty heredity, and I was surprised to find that the only treatment for her asthma had been stramonium, or datura tatula cigarettes, and a cough mixture. As she was about twenty-six years of age, and had been subject to these attacks for about ten years, I am afraid that the disease had taken too strong a hold to be easily cured. The other case was in a rheumatic patient, who was about sixteen. She had had a few scanty periods with much suffering, and always accompanied by severe asthmatic attacks. Cough mixture, and hot gin, or whisky and water, had been considered sufficient treatment for her.

I cannot, unfortunately, offer any suggestions derived from my own experience as to successful treatment, as I have never, except in one case (No. 3), seen the patient again. As a general rule, cinchona, iron, and abstinence from sweets, acids, and, above all, milk and cheese, may be found of service, and, where practicable, recourse should be had to those mineral waters which are of service in gouty and rheumatic cases. Turkish baths are serviceable, and salt-water baths, under proper precautions, most beneficial. Flannel should always be worn next the skin. I must not omit, however, what is perhaps of equal importance with iron—cod-liver oil. It should enter into the daily diet of these patients, and be as familiar an article of food as toast, potatoes, or tea.—*Edinburgh Medical Journal, September.*

LATE HEMORRHAGE IN THE PUERPERAL MONTH.

(Prof. F. A. Kehrer, in *Praktischer Arzt.*) The majority of these late hemorrhages (during the second and third weeks) have their origin from the point of placental attachment, and, in most cases, occur after the woman has left the bed. Examination of a

number of such cases showed three distinct conditions of the genital organs.

1. Most frequently, the somewhat enlarged uterus is found to contain a soft blood clot; after removal of this, the projection of the placental site can be felt. In these patients, the first week may have been normal, and the as yet unorganized clots at the placental surface detached by strong bodily exertion; or the patient may, from the first, have had symptoms of endometritis; this latter accident would very readily explain the delayed healing of the placental site or its necrotic softening. In such cases, the prognosis is almost always favorable.

2. In rarer cases, we find, within the uterine cavity, a hard, smooth tumor, varying in size from an acorn to a hen's egg; its center, macroscopically and microscopically examined, proves to be a portion of the placenta. Layers of blood and fibrine have been deposited around it, and the uterine contractions have given it an oval form. Kiwisch designates these as *fibrinous polypi*, Carl Braun calls them *placental polypi*, and Virchow, *polypiform hæmatomæ*. In these cases, it has been observed that the after-pains have been very severe and have lasted unusually long, and that the puerperal hemorrhage, during the first few days, was excessive in amount. After the cessation of hemorrhage, the lochial discharge has an unpleasant odor, the uterus is painful, and, in the second or third week, frequently recurring hemorrhages take place, rapidly exhausting the woman's strength. Sometimes the polyp degenerates, and passes off with the lochia, or it may be spontaneously expelled by the uterus in its entirely. The retention of a part of the placenta may now and then be attributed to a partial placentitis (Hegar), which causes the affected portion to more closely adhere to the uterine surface; but, whatever be the cause, it should always be our aim to prevent such an accident.

3. Finally, there are cases in which the uterus and vagina are found filled with fresh clots, on removal of which, thin blood flows from the uterine cavity. These gushes occur with each succeeding pain. Internal examination fails to detect the site of placental attachment. The uterus is generally small in size.

This last class of cases leads to the most unfavorable prognosis, as the patients generally belong to the hemorrhagic diathesis, and the frequent hemorrhage from the genitals, alternating quite often with epistaxis, rapidly diminishes the patient's strength, and is succeeded by a high grade of anæmia.

In exploring the uterine cavity in all such cases, the greatest caution must be observed, as there is exceeding great danger of infecting our patients. Antiseptic injections (preferably 1-2 per cent. solutions of carbolic acid) should always be resorted to. After thoroughly cleansing the vagina, the uterine cavity should be similarly treated. In case of severe hemorrhage the ordinary hæmostatics (tampon, ice, ergot) should be employed. If necessary, undiluted liq. ferri sesquichlorid. may be used as the injection. If the lochia be not putrid, nor the uterus sensitive, exploration is then in order. Soft clots and placental polypi, if found, should be at once removed. The finger is, by far, the best instrument by which to accomplish their removal.

Constitutional treatment is indicated in all these cases.—*Cincinati Clinic, from Schmidt's Jahrbucher*, No. 6, 1877.

Ergot in Hemorrhoids. By Edward S. Lansing, M. D., of Burlington, N. J.—It is conceded by the curious and most careful investigators and experimenters, and confirmed by the clinical observations of many practising physicians, that ergot produces a very decided effect upon the unstriped or involuntary muscular fibre, exciting it to contraction.

The uterus in the gravid state is the most familiar example in which its power is susceptible of very satisfactory observation.

In atonic hemorrhages, hæmoptysis, hæmaturia, its efficacy is acknowledged. In chronic congestion of the spinal cord and its coverings, its power to cure is vaunted by no less authority than Dr. Brown-Sequard. In the last-mentioned diseases the capillaries are involved.

Considering the pathological condition denominated hemorrhoids to consist in an enlarged condition of the veins (an increased length and diameter as a result of hæmostatic pressure at some

time) which continues after the inducing cause or causes are removed, simply on account of the relaxed and feeble condition of their coats, and conceding the power of ergot upon that greatest aggregation of unstriped muscular fibres in the human system,—the uterus,—also its power upon the capillaries, where the presence of the unstriped fibre has with difficulty been determined, as in hæmaturia and chronic congestion of the spinal cord, it suggested itself that ergot ought to relieve, and with so many favorable factors one could reasonably expect it would cure, many cases of hemorrhoids.

Having an intractable case on hand of twelve years' standing, I tested it.

I used ergotin in suppositories, four grains each, night and morning at first, subsequently at night only.

The first effect of the ergotin was to produce pain for half an hour or more, but after the use of three or four no unpleasant effect attended their use.

The hemorrhage ceased, the congested condition of the parts yielded, the hyperæsthesia was replaced by normal sensation, the hard, cordy condition of the veins passed away, and the slight tumefaction remaining suggested interstitial fibrinous exudation or cellular hyperplasia.

Having treated five cases with the ergot, in four of which the result was more satisfactory than I anticipated, the fifth is still under active treatment.

Having never seen the treatment suggested, and the result in my cases being so happy, I offer it that others may test it, and possibly much relief accrue to a numerous class of great sufferers. —Philada. *Medical Times.*

DILATATION OF THE CERVIX UTERI FOR THE ARREST OF UTERINE HEMORRHAGE.

Dr. George H. Lyman, of Boston, read a short paper upon the above subject, in which he presented the claims of dilatation of the cervix uteri as a means for arresting uterine hemorrhage, and related cases in which the means had been adopted with advantage. The dila-

tation had been performed for purposes of diagnosis, and so marked had been the relief from the hemorrhage, which had been the alarming symptom, that special attention had been aroused to the dilatation as a means for its arrest. The first case was one in which there was a small fibroid on the upper part of the cervix; it had been attended by profuse and frequent hemorrhages. Dilatation by means of a tent was followed by immediate subsidence of the hemorrhagia occurring in a woman twenty-eight years of age, and in whom no deviation from the normal condition in the uterus could be found. She was liable at all times to sudden gushes of blood. Dilatation was followed by immediate relief; her periods became regular and the flow normal. To the third case not much importance was attached. The fourth case was one in which menorrhagia was present, dependent upon hyperplastic endometritis. The hemorrhage at times was profuse; for nine months the woman had been confined most of the time to her bed. Fibroids were also present. Dilatation, removal of masses of hypertrophied mucous membrane with the forceps, scraping the cavity with the curette, were followed by immediate and permanent relief, no menorrhagia having occurred for two years and a half. The fifth case was one in which the cavity of the cervix was dilated with a tent, the curette introduced, and small growths removed which had, upon microscopical examination, something the appearance of malignant disease. The dilatation and the use of the curette were followed by an arrest of the hemorrhage. In the first case, although the fibroid was not removed by extreme dilatation, the hemorrhage was immediately controlled. In the second case, hemorrhage, without discoverable cause, and of four years' standing, was relieved by the dilatation and had not returned. In the third case, hemorrhage was greatly diminished by the first tent introduced. In the third and fourth cases, it was impossible to affirm that dilatation alone would have arrested the flow, for in both cases the curette was employed, and hypertrophied mucous membrane and hyperplastic growths were removed; and yet it did not seem certain but that the dilatation, by removing the constriction of the cervix, might not have alone arrested the hemorrhage.

The theory with regard to the operation was, that it removed the constriction at the internal os, consequently relieved the tissues above that part. The suggestion was thrown out, had we not been too ready to substitute cause for effect, and was not the hyperplasia of the lining membrane of the uterus, etc., the consequence of strangulation of the cervical vessels by a moderate constriction of the circular fibers of the cervix, and with the removal of the one, relief would come with the other.—*Transactions of the American Gynecological Society, in Amer. Journ. of Obstet.*

Howard's Method of Artificial Respiration.—Dr. Benjamin Howard, of New York, in a late paper before the British Medical Association, objected to Hall and Silvester's method, and proposed the "direct method." In this, in order to dispose of accumulations in the stomach or chest, the patient being turned face downward, a firm bolster beneath the epigastrium made that the highest, the mouth the lowest point. Pressure being made on the back, the object was accomplished by both ejection and drainage. The patient, stripped to his waist, being quickly turned upon his back, the bolster was placed beneath it, making again the epigastrium and anterior margins of the costal cartilages the highest points of the body, the hips, shoulders and occiput barely resting on the ground. The patient's wrists were seized, and the utmost possible extension being secured with them crossed behind his head, they were pinned to the ground with the left hand, so as to maintain it. With the right thumb and forefinger armed with the corner of a dry-pocket-handkerchief, the tip of the tongue was withdrawn and held out of the extreme right corner of the mouth. (If a boy were at hand, both wrists and tongue might be confided to his care.) In this position, two thirds of the entrance to the mouth were free. The epiglottis, by this backward curvature of the neck, was precluded from the pressure often caused by undue flexion. The head, as Nêlaton urged, was dependent; the free margins of the costal cartilages were as prominent as they could be made. By crossing the wrists, the latissimi dorsi were brought further into play than usual,

and there was a fixed thoracic expansion, which Dr. Howard believed unattainable in any other manner. The epigastrium being the highest point, the diaphragm was neither embarrassed from pressure above nor from below. To produce respiration, the operator knelt astride the patient's hips, and rested the ball of each thumb upon the corresponding costo-xiphoid ligaments, the fingers falling naturally into the lower intercostal spaces. Resting his elbows against his sides, and using his knees as a pivot, the operator threw the whole weight of his body slowly and steadily forward until his mouth nearly touched the mouth of the patient, and while one might slowly count one, two, three; then suddenly, by a final push, he sprang back to his first position on his knees; remain there while one might slowly count one, two; then repeat, and so on, about eight or ten times a minute. The resiliency of the ribs insured an instant rebound to the point of departure. The operation was not fatiguing, the force employed being the weight of the operator, who remained in an easy position, with alternations of complete rest. It could be practiced by anybody, anywhere, before or after division of the funis; in a bath, bed, or boat; and friction, electricity, insufflation or tracheotomy could be practiced simultaneously, without inconvenience.—*Medical and Surgical Reporter.*

ABSTRACTS AND EXTRACTS.

MUMPS.—Communications concerning epidemic parotitis or mumps, have lately appeared in the Arch. f. Klin. Chirurgie xx, 3, p. 600, by Dr. M. Fehr, and by Chauvin and Juloux in the Rec. de Mém. de Méd. etc., Milit. 3, Sér. XXXII, p. 473—478, from which the following extracts are made:

After enumerating the epidemics of any extent which have appeared in the past century, Fehr takes up the relation between mumps and the acute exanthemata. Harless (1799), and after him Warnekross, Kopp and Horst saw mumps break out immediately after epidemics of scarlet fevers. In several cases of mumps there was even desquamation of the epidermis over the body and dropsical swellings. In several epidemics it was observed that the scarlet fever

epidemic subsided on the appearance of parotitis. It was observed also that just those individuals were attacked with mumps, who had been spared by scarlatina.

The immediate precedence or simultaneous occurrence of measles has likewise been received by Collin, Liverani, Wittke; of small pox, by Laghius and roseola by Rilliet; while the great mumps epidemic of Erlangen (1799) was followed by variola in very dangerous form; and in 1867 parotitis, small-pox and measles were all epidemic at once in Constantinople.

The mumps epidemic at Heidelberg, observed by Fehr, was attended and followed by scarlet fever, and three of his mumps patients were attacked during the disease with an eruption like rötheln (German measles).

That there is therefore, according to Fehr, a certain connexion between these diseases, can not be doubted any more than that the epidemic eruption of parotitis is due to a specific infection.

This view of specificity is strikingly proven by an observation of Rilliet where a girl went from a region entirely free from mumps, on a visit to a relative attacked with it; in eight days later she was attacked herself, and in two weeks communicated it to her brother. But that the infection of mumps, as König maintains, is like erysipelas, communicable to the salivary ducts where it produces catarrh and thence passed into the blood, is refuted by the observation that up to this time no affection of the mouth has ever been seen to precede mumps.

The implication of the different glands is in general very variable, while it is the parotid and sub-maxillary glands which suffer most and the tonsils and sublingual glands more rarely, still in some cases all the cervical glands are also affected and in other epidemics, as in that mentioned by Pranck, the submaxillary glands may alone suffer. It is justifiable, therefore, to regard mumps as an infectious disease in close relation to the acute exanthemata, mumps being especially characterized by acute swelling of the salivary glands, to which in all severe cases is associated an infiltration of the surrounding tissues. Occasionally there supervenes also a more or less painful swelling of the sexual glands. This complication usually develops when the swelling of the salivary glands is in process of subsidence. The organs that suffer are the testicle, more rarely the epidydimus, the prostate, the ovary, breasts and also the labia majora. Sometimes these organs are affected before the salivary glands, and sometimes

they alone are affected, facts which sufficiently refute the idea of any metastasis. In several cases the volume of the testis diminishes after the swelling.

Fehr gives the particulars of the disease in his own person. He remarked that the point of departure in the swelling was not from the surrounding cell tissue, but was from the gland tissue itself. In bad cases suppuration may ensue in the surrounding tissue; this accident more frequently happens in elderly people. In ordinary cases the disease consists of a fluxionary hyperæmia of the gland without the peculiar character of an inflammation. To prove that mumps is a disease characterized by a specific alteration of the blood, Fehr mentions the fact that a febrile movement precedes the local manifestations by 2—8 days; also the case cited by Homans, of a woman who was attacked with mumps during labor, and whose child was likewise attacked on the day after its birth. But as the period of incubation of the disease is at least a number of days, the infection must have been effected through the mother's blood. "The mumps," says Fehr, "belongs in its whole being not to surgery, but to internal medicine, and must be included, as Lebert has shown, among the acute exanthematous diseases."

The report of Chauvin concerns an epidemic of mumps among soldiers, in which the complication with orchitis is of especial interest. Of 45 patients 15 were attacked towards the end, and one patient had the testicle and epidydimus affected without any implication of the parotis at all. In six of these cases atrophy of the testis followed. In regard to the etiology, Chauvin believes in unfavorable hygienic and telluric influences. He does not believe in contagion or any transmission of the disease.

On the other hand Juloux proves contagion by showing that the disease always attacks members of the same company or barracks, in numbers at a time. He has also devoted especial attention to the complications on the part of the sexual organs. He found that of 35 cases, 14 were attacked with consecutive orchitis and that in all of these cases a noticeable atrophy of the organ ensued, an atrophy which became more and more pronounced with the lapse of time after the primary affection.—*Cincinnati Lancet and Observer, from Schmidt's Jahrb.*, 1877, No. 4.

THE RELATION OF THE SEXUAL LIFE TO ACNE ON THE FACE.

Mr. Jonathan Hutchinson says, in a recent lecture respecting the acne of the young, there is a very widespread opinion that it is usually the result of sexual disturbance. I have no doubt that this belief is well founded to some extent, but we must beware of exaggerating it. The eruption is chiefly met with in young celibates, whilst it is very rare under the age of puberty, and is often benefitted by marriage. It is possible, however, that its comparative rarity in the married may, after all, be a coincidence and not a sequence, and that we ought to consider it not so much a disease peculiar to celibacy as to the special age at which a large majority of the population are celibates. It may certainly occur before puberty. I have seen it not very infrequently in children, and once in a very marked form in the face of an infant of six months. It is also frequent in married persons of both sexes, and sometimes originates after marriage. I have known it occur in ladies who were bearing children, and in whom the sexual functions appeared to be in perfect activity.

Making full allowance for a considerable number of acne cases in which there appears to be no sexual cause, there are yet, I think, good grounds for accepting the general belief that in a majority of instances such is the fact. The remarkable influence which the sexual functions exercise upon the general health and upon the state of the nervous system is among the secrets known unto all men. That they should have the power of making the sebaceous glands of the skin enlarge and suppurate is certainly, if thought about, one of the most strange. I suspect that, when it occurs, it is brought about through the agency of the nervous system rather than of the blood. Women who are not liable to acne at other times sometimes have a few spots appear at each menstrual period, and that whilst in excellent general health. I have been assured by gentlemen liable to nocturnal emissions that they invariably had an increase of acne spots after such occurrences, and sometimes so immediately, that it was impossible to believe that any material change in the blood had occurred. In other cases sexual intercourse may produce the same result.

It is certainly not in cases of extreme sexual exhaustion that acne is most common. I have seen many such patients, both with and without spermatorrhœa, who had not a spot of acne, but, on the contrary, had skins which were perfectly smooth—in some instances

florid, in others very pale. It is, perhaps, rather a condition of sexual irritability than of exhaustion which produces acne. I do not think that the severity of the acne eruption bears any relation to the degree of sexual disturbance. In the worst cases that I have seen the patients often seemed to be in good health.

To dismiss the subject, we may remark that the prescriber ought, in respect to the acne of celibates, to bear in mind the possibility of a sexual cause. He will advise the adoption of measures likely to improve the general vigor, he will caution against any possible causes of debility, and he may, in some instances, suggest matrimony as the remedy most likely to prove successful.

THERAPEUTIC USES OF PILOCARPIN.—From some comparative trials which he has made with the internal administration of pilocarpin, Dr. Curschmann believes that the infrequency with which it causes vomiting, as compared with jaborandi, is principally due to its being used hypodermically, and thereby avoiding direct irritation of the stomach. Some persons, especially those who have been weakened by prior disease, complain of a sense of debility, but this usually soon passes off; but in others a complete state of collapse is produced, which may or may not be connected with prior vomiting. The possibility of this occurrence must always be borne in mind. It is dependent upon the amount of the dose and the susceptibility of the individual. It is oftenest met with in women and in those whose strength has been greatly reduced; and when the patient's constitution is not known, the first dose of the medicine should not exceed 0.02, while its effect should be watched for a quarter or half an hour. As far as the trials have gone, pilocarpin does not seem to act dangerously on the subjects of heart disease, and, indeed, can be employed when no other diaphoretic procedure for so long a period would be ventured upon. Indeed, as a therapeutical agent for the production of diaphoresis, it is superior to any other method in use, being more easily employed, while its action is more certain and more complete, without being more, or even so, dangerous as most of these. Its superiority over the various sweating-baths in ascites, hydrothorax, asthma, etc., is most marked. It is true that diaphoretic treatment is thought less of than formerly; but in several cases the difficulty of its application, rather than its inefficacy, is the cause of its not being resorted to. Speaking from his own experience, Dr. Curschmann has

found the pilocarpin very useful in œdema, in dropsy of the cavities from heart or lung disease, and in chronic nephritis, etc., and that after diuretic, drastic, and other means have failed. He believes that a large field for its employment may be found in pleurisy accompanied by serous exudation, both in promoting the absorption of this, and in preventing its re-accumulation after paracentesis. It is evidently indicated in chronic rheumatic affections, at least, so far as these are amenable to diaphoretic treatment.—*Medical and Surgical Reporter*, of October 6th.

BILIOUS ATTACKS.—Dr. Fothergill (in *Medical Times*) says of the treatment of bilious attacks to which dark-complexioned persons of the biliary diathesis are most subject: Rarely do persons of other diathesis and fair persons suffer from those disturbances which may fairly be said to be connected with the presence of bile acids in excess; while as to those forms of biliary disturbance where the urine is laden with lithates, the condition Dr. Murchison calls lithæmia, persons of other diathesis seem equally liable to them, and they are found in fair and dark people alike. For those bilious attacks, then, which occur chiefly in those of the bilious diathesis nothing is so good as alkaline saline purgatives taken in some vegetable infusion immediately on getting out of bed in the morning. This should be washed down with some warm fluid which excites the peristaltic action of the bowels, and, if necessary, a vegetable laxative pill should be taken the night before. After a couple of liquid motions—the more copious the better—the bilious person feels pretty equal to the day's work before him. Rochelle salts with a little sulphate of magnesium in infusion of buchu forms a most excellent morning purge, in my experience. Sir Joseph Fayrer has found in his Indian experience sulphate of magnesium, with quinine or gentian, sufficient to produce two or three loose motions, an efficient measure in biliary congestion.—*Southern Med. Record.*

EDITORIAL.

SECOND VOLUME.—With this issue the MARYLAND MEDICAL JOURNAL enters upon its second volume. Started under circumstances not the most favorable, considering the repeated failures of such enterprises in Baltimore, and with not a few misgivings, on the part of its friends, as to its ultimate success, it has been received and encouraged by the profession in a way that leaves no doubt of its future.

Only asking support commensurate with its merit, we are constrained to believe, from the favorable reception it has had, that the profession place a flattering estimate on it and we are proud to say, that, despite the severe trials to which all new enterprises are subject, its career has been one continuous round of successes and we are now safe in promising that it will long remain one of the permanent institutions of Baltimore and, we trust, a credit to the honored profession, everywhere, of which it aims to be a true exponent.

With a grateful sense of the obligations we owe those who have encouraged our efforts to serve the profession, and with a firm purpose to merit a continuance of their good wishes and support, we enter upon the work of our second volume with renewed hopes and aspirations, and may be permitted to express the wish that the pleasant relations heretofore existing between ourselves and our generous patrons may ever continue.

A NEW JOURNAL UNDER AN OLD NAME.—We have received the prospectus of the new North Carolina *Medical Journal* which is to be revived on January 1st, 1878, by Drs. M. J. De Rossett, and T. F. Wood, of Wilmington.

The career of the old journal, under the above name, is well known to medical readers and its reëstablishment, at this time, will be hailed with pleasure.

The present editors need no introduction to the medical world. They are well known for their energy, zeal and professional attainments.

We shall gladly welcome this new candidate for favor, and we trust the editors and their *Journal* may have a long career of success and usefulness.

Avoid Mistakes.—Not all the mistakes in the dispensing and administration of medicines are committed by the uneducated and unlicensed; physicians, and, more frequently pharmaceutists, commit errors which, with a little thoughtful care, might be avoided.

With a view to self-protection physicians generally discard English entirely in writing prescriptions while some, we regret to say, do it as a means of mistifying the uninitiated. With the first it is no protection as druggists refill any prescription on the application of the patient or any one else giving its number, while with the second the abbreviation or misuse of medical terms frequently leads to serious mistakes.

For patients and physicians the safest plan would be to use plain English throughout, (except in terms for which there is no English equivalent), and *never abbreviate* any word or term.

A case was recently reported of a pharmaceutist's putting up corrosive sublimate for chloral hydrate, the prescription calling for *hyd. chlor.* This is only one of many mistakes that might be avoided by writing out the words *in full*, either in English or its technical equivalent as the prescriber deems best.

New Medical School.—Drs. T. W. Harris and W. P. Mallett will soon organize a medical school in connection with the University of North Carolina, at Chapel Hill. In the better days of the University, prior to the war, there was such a school at Chapel Hill as is now proposed to be organized there. The gentlemen having this enterprise in hand are physicians and teachers of acknowledged reputation and an admirable opportunity will thus be afforded students who are seeking an education at the University with a view of engaging in the practice of medicine. Drs. Harris and Mallet have our best wishes for their success in their laudable work.

We again invite the attention of our subscribers and other readers to our advertisements, new and old.

We insert no advertisement of a questionable character, and do not seek the patronage of any but the most reliable houses, hence we can safely recommend all whose advertisements appear in the Journal. Physicians or others dealing with any house represented in our columns can rely on just and fair dealing.

HYMENEAL.—On Tuesday, October 16th, Dr. T. A. Ashby, Resident Physician at the Baltimore Infirmary and one of the Editors of this Journal, was united in the holy bonds of wedlock to Miss Minnie Cunningham of Covington Ky.

Dr. A. B. ARNOLD, Professor of Diseases of the Nervous System and Clinical Medicine, delivered the lecture introductory to the regular Winter course of lectures, in the College of Physicians and Surgeons, on the evening of the first of October.

CAMPHENYL, a new product of coal tar, is recommended in all diseases which are connected with or are dependent on the presence of microscopic plants or animals.

DR. W. E. A. AIKIN, Professor of Chemistry, delivered the first of the regular Winter course of lectures in the University of Maryland School of Medicine, on the first day of October.

THE TENTH ANNUAL MEETING of the Canada Medical Association was held in Montreal on the 12th of September, Dr. Hingston, president, in the Chair.

THE MARYLAND MEDICAL JOURNAL is on file and for sale at the office of the Baltimore News Company, Corner of South and Baltimore Streets, where back numbers can be obtained.

SUBSCRIBERS will confer a favor by promptly notifying us of any failure to receive the JOURNAL.

THE BI-WEEKLY has a few pertinent reflections on the advertising agency nuisance in which we heartily join.

THE attendance at both the medical schools, in this city, is large, the attendants representing a majority of states in the union.

THE regular winter course of lectures in the Baltimore College of Dental Surgery began on the 15th of October.

The Virginia State Medical Society met in Petersburg on the 23rd. ultimo. We hope to present a report of its transactions in the December number of the Journal.

The Clinical Society and Baltimore Medical Association, of this city, began their regular meetings, for the winter season, on the first of October.

BRIEFS.

Decided Doses in Neuralgia.—There is a prevailing and not a sound tendency to give medicine too timidly. Surgeon General Francis, of the British Army, remarks, in a recent article, that in neuralgia, for example, we are frequently told that everything has been unavailingly tried, and that the sufferer, tired out at last, has decided on going abroad. On inquiring into the extent to which the antiperiodic remedies—notably quinine and arsenic—have been pushed, it will be generally found that the doses were considerably less than he has been in the habit of prescribing with almost unvarying success. During a residence of several years in India he has frequently given, in suitable cases, from ten to twenty, and even thirty, grains of quinine; and where this has been ineffectual, from twenty to thirty minims of Fowler's solution of arsenic have succeeded in starving off the attack. The habit once broken through, smaller quantities of either drug will be sufficient, but the remedy must be continued for a few days. In some instances quinine and Fowler's solution together (from six to ten grains of the former and ten to fifteen minims of the latter), will produce the desired effect, which neither would have produced singly.—*Medical and Surgical Reporter.*

Disinfectants.—Professor Hartshorne, in his lectures on hygiene, divided disinfectants into—I. Absorbents; *e. g.*, dry earth, lime, and charcoal. II. Antiseptics; sulphurous and nitrous gases, chloride of calcium, zinc, iron, chloralum, bromo-chloralum, sulphate of iron, and carbolic acid, III. Decomposing agents; for sulphurated hydrogen, salts of lead (nitrate); for dead organic matter, chlorine, bromine, and permanganate of potash. IV. Destroyers (?) of contagion and disease germs; carbolic acid, salicylic acid, heat, and cold.

THE VEGETABLE ORIGIN OF MALARIA.—Dr. Salisbury, of Ohio (*Medical and Surgical Reporter*), some years ago claimed to have discovered the microscopic vegetation which produces malarial disease. Recently, two Italian physicians, Signori Lanzi and Terrigi (*Monthly Microscopic Journal*), have discovered minute dark granules belonging to Cohn's group of pigmented sphæro-bacteria within the endochrome of algæ, which increase in number with decay of the latter. These granules yield on cultivation the Monilia peniciliata of Fries, and are indentical with the pigment granules of the liver, spleen, and blood of those who have suffered from malarial diseases. Lanzi has even obtained a Zoogloœa by cultivation of these granules from a human liver. On the evaporation of the marshy pools of the campagna in summer, great sheets of decomposing algæ are exposed to the air, the sphæro-bacteria abound, and are found floating in vast numbers in the atmosphere, to the height of fifty centimetres above the level of the marsh.—*American Medical Bi-Weekly.*

CHINESE OPIUM SMOKING.—The Chinese Goverment has passed a permissive edict calling upon the governors of the various provinces to suppress the indulgence of opium smoking. A prolonged notice of three years from the present date is given before the edict comes into force. It remains to be seen how far an edict of the Goverment is capable of supressing a vice so deeply rooted in the Chinese nation as that of opium smoking,

---

CAUSE OF DISEASE.—Sir Henry Thompson says: "I have visited rich and poor, high and low, all my life, and I solemnly declare that the great bulk of the disease with which I have had to deal arose from the drinking of intoxicating liquor. I do not mean what people call drunkenness, but the regular, steady customs in which most of us indulge every day of our lives."

ESMARCH ON CANCER.—In a recent lecture on cancer, Prof. Esmarch said that he had frequently seen cancer originate upon a syphilitic basis, and often where the syphilis had been latent for a long period. He advised that cancers and malignant growths, wherever occurring, should be treated by arsenic and iodide of potassium internally and externally, before proceeding to an operation.

Deplorable Fatality Among Children.—Our exchanges for several weeks past and from many different sections of the State have contained saddening accounts of the ravages of diptheria in towns, counties and neighborhoods. This scourge has prevailed with devastating effect along the line of the North Carolina Railroad. We published, yesterday, from the Greensboro' *New North State*, a statement of the fatality attending it at Company Shops, accompanied by the further statement that the little ones of the village have been seized with a terrible fear and seem to regard themselves doomed to death. A passenger who arrived in this city yesterday on the North Carolina train, was told by a citizen of Thomasville as the train passed that point, that four children in that place died, Friday, of diptheria. On that day there were six deaths in the village, two persons having died of consumption. This is sad intelligence indeed, and we can well imagine that there is a state of feeling in Thomasville amounting almost to a panic.—*Charlotte (N. C.) Observer.*

Deaths from Chloroform.—In the *Cincinnati Medical News* for August Dr. S. P. Cutter, of Memphis. Tenn., gives the details of the death of Dr. ourdan, who died while having an eye extirpated under the influence of chloroform.

The *Toledo Medical and Surgical Journal*, August, 1877, reports a death from chloroform in the Homœopathic Hospital of Toledo. The subject was a boy, aged 12, who was undergoing an operation for talipes.

Two deaths are reported in England, recently, from the administration of chloroform—one at the London Hospital and one at the Royal Opthalmic Hospital, Moorfields.

The *British Medical Journal*, Aug. 18th, 1877, reports a case of "death from chloroform averted by the inhalation of Nitrite of Amyl."

Ovarian Tumor in a Child.—A case of ovarian tumor in a child twelve years of age, is reported by Dr. McGraw of Detroit, in the *Toledo Journal*, (July No.) The tumor was of rapid growth; the child was undeveloped sexually, and had never menstruated. She was tapped and three gallons of bloody serum removed, containing some red blood corpuscles, but none of the usual granular corpuscles, The fluid rapidly reäccumulated, and at the end of four weeks ovariotomy was performed. The patient made a good recovery.

Infant Mortality in Norway.—The mortality of new-born infants in Norway is, on an average, 11 per cent., while everywhere else it has been 15 to 20 per cent.; and it has always been less for female than for male infants. The small mortality is claimed to be due to the fact that the women in all classes of society always suckle their infants during the first year, and very often much longer.

Hyoscyamin in Insanity.—The use of this remedy in the treatment of the insane has been tried by Dr. DeWitt, Medical Superintendent of the Longview Asylum, Ohio, who speaks very highly of its value. He contrasts it with chloral and opium, and says that it has, in addition to the hypnotic effect, a curative action. It appears to be especially indicated in recurrent mania and melancholia with depression. He gives it in doses of one grain of the alkaloid.

Artificial Eyes.—Between 8,000 and 10,000 artificial eyes are sold annually in the United States. The average cost of an eye is $10, and the color for an eye most in demand is what is known as "Irish blue." Christian Hohn, a New York German, makes glass eyes for horses that will defy detection by all except accomplished experts.

Specimen-Copy Men.—The medical journals are waging war on those petty buccaneers or thieves, the specimen-copy men. These send postal-cards (not even a stamp furnished) to all medical editors asking for a "specimen copy of your valuable journal, with a view to subscribing," and thus get their medical reading matter by filching it. What shall be done with them? What do the subscribers say? Shall their names and addresses be published?—*Bi-Weekly.*

Novel Modes of Treatment for Worms.—A correspondent of the *Bi-Weekly* writes that a doctor in Arkansas uses the following treatment for worms:

"For small worms, give three doses of laudanum an hour apart; by this time the worms are asleep; then give a dose of oil and shoot them off while they are asleep."

"For tape-worms, starve the patient three days, and then bake a nice pie and let the patient smell it, when the worm will come up to get it; then catch him."

THE CLIMATE OF SOUTHERN CALIFORNIA.—According to a correspondent of the *Boston Medical and Surgical Journal* (Sept. 13, 1877), Southern California, and particularly the Ojai Valley, offers to invalids the following advantages: 1, mildness of temperature; 2, equability of climate; 3, dryness of atmosphere; 4, sheltered situation; 5, freedom from malarious diseases; and 6, plenty to amuse and interest visitors.

YELLOW FEVER still prevails to an alarming extent at Fernandina, Florida, and at Port Royal, S. C. Most of the population at the former place have suffered. There is great distress for the want of nurses, provisions, and money; as usual physicians from neighboring cities have volunteered their services, and there has been scarcely any suffering from the want of medical attendance.

DEATHS FROM ANÆSTHETICS.—Deaths from anæsthetics continue to be reported with alarming frequency in England. Two occurred in one week in London, one under chloroform, the other under a mixture of chloroform and ether. Fatty degeneration was found in both instances, at the post-mortems.

DR. GRIFFITH recommends the following application to the ulcerations in the severe and very painful sore-throat of scarlatina: chloral, five grains; glycerine, twenty-five grains. After this has been applied with a brush the pain is much diminished, and the patient can swallow medicine or food without the severe pain which the action caused before.—*New York Med. Jour.*

HOW TO DEPRIVE IODINE OF ITS STAIN (*Ex. Am. Jl. Med. Sciences*).—Add a few drops of carbolic acid to the tincture and it will not stain; moreover, the tincture is more efficacious, and its action more certain. M. Boggs recommends the following formula for use in injections: Alcoholic tincture of iodine, 3 grammes; carbolic acid, 6 drops; glycerine, 30 grammes; distilled water, 150 grammes.

THE Canadian Journal of Medical Science, for August, says, it is reported that a Medical School is to be started in Ottawa.

BRITISH MEDICAL ASSOCIATION.—The 45th annual meeting of the British Medical Association was held in Manchester, commencing on the 7th of August. Dr. M. A. E. Wilkinson was appointed President for the ensuing year. Dr. W. Roberts, of Manchester, delivered the address on Medicine; Spencer Wells the address on Surgery; and Dr. Priestly of London, the address on Obstetrics.

A PULSE OF TEN BEATS PER MINUTE is reported in the Paris *Gaz. Medicale*. The case was pernicious algid fever. After several hours at the stated rate, it rose to twenty-five, and continued from twenty to twenty-eight for three days. The patient died.

IN THE *Revue de Therapeutique Medico-Chirurgicale* mention is made of a death having occurred from attempts to dilate a narrowed os uteri by means of sponge tents. Peritoneal effusion, and an abscess containing an ounce and a-half of pus beside the neck of the uterus, were found *post-mortem*.

MARY SMITH, a graduate of Mount Holyoke Seminary, and who has been for over two years studying medicine at Zurich, Switzerland, is visiting her home at Westfield, Mass. She returns next month, to complete her course, and will then begin to practice in this country. Thus, little by little, the Smith family are being turned to a good account.

THE HOTEL DIEU, PARIS.—The new Hotel Dieu was officially opened on the 11th of August by Marshal MacMahon. It appears to have cost forty millions of francs and contains only 400 beds.

TRAUMATIC TETANUS.—Dr. G. A. Evans reports (*Trans. Med. Soc. County of Kings*, September, 1877) a case in which nitrite of amyl seemed to do harm, but in which recovery followed the bold administration of cannabis indica.

CREMATION seems to be progressing in Switzerland. The government of the canton of Zurich has just authorized the process, which is, of course, to be optional, and subject to certain restrictions.

Dr. Saml. A. Mudd, the physician who attended Wilkes Booth and set his leg after Lincoln's assassination, and afterward was sentenced to the Dry Tortugas, and pardoned by President Johnson, has been nominated to the legislature by the Democrats of Charles county, in this State.

Mr. Simon (*Chicago Medical Journal and Examiner*) states that he instantaneously cured a case of hiccough which had lasted twenty-six hours by the inhalation of three drops of nitrite of amyl.

Surgeon-in-Ordinary to the Queen in Scotland.—This position, which was vacated by Mr. Lister's removal to London, has been conferred upon Prof. George Macleod, of Glasgow.

In his report on the Pathological Institute of the Charité Hospital in Berlin, Professor Virchow states that 2,736 post-mortem examinations were made there in 1875.

The last number of "Silliman's Journal" contains an article "on the crystalline form of the hydrous and anhydrous varieties of ethylidenargentamine-ethylidenammonium nitrate."

The British Parliament appropriates $10,000 a year to scientific investigations into the causes and processes of disease.

Dr. Fulton, Editor of the *Canada Lancet*, has been elected to the Senate of Toronto University, as the Trinity School representative.

The Senate of the London University has resolved to admit women to degrees in medicine.

BOOKS & PAMPHLETS.

The Ear: Its Anatomy, Physiology, and Diseases.—A Practical Treatise for the Use of Medical Students and Practitioners. By Charles H. Burnett, A. M., M. D., Aural Surgeon to the Presbyterian Hospital; Surgeon in charge of the Infirmary for Diseases of the Ear, Philadelphia. Published by Henry C. Lea, Philadelphia, 1877. For sale by Cushing & Bailey, 262 W. Baltimore Street, Baltimore, Md.

The medical student and general practitioner have long felt the need of a book of this character on an organ so little understood and yet so important as the Ear. The author has presented in the volume clearly but concisely the great advances which have been made of late years in otology and has indicated the direction in which further researches can be most profitably carried on.

The work is divided into two parts. In part I the anatomy and physiology of the Ear are minutely, yet explicitly, detailed in a manner not to be found in any of the ordinary text books. In part II the diseases and treatment of the Ear are fully and practically presented. To the medical student and general practitioner, this work is indispensable, and will not be found void of interest to the specialist. The entire volume is handsomely illustrated and printed in the attractive style so characteristic of the Publishing House of Henry C. Lea.

Transactions of the Kentucky State Medical Society.—Twenty-Second Annual Convention: held at Louisville, Ky., April 3, 4, and 5, 1877. Louisville: Printed by John P. Morton & Co., 156 W. Main Street, 1877.

The Transactions of the Kentucky Medical Society for 1877, come to us in an elegant and attractive volume, reflecting great credit upon the industries and talent of the Profession in that state. It contains a number of valuble papers by distinguished medical men throughout the state, the literary merits of which are far above the average. Judging from this volume we should say that this state society indicates a degree of healthfulness most creditable and encouraging. The volume is beautifully printed, a model style for similar publications.

Physician's Case-Record Ledger. Cincinnati; Robert Clarke & Co., Publishers—1877.

A convenient and handy book in which physicians may with ease and facility keep their accounts accurately and with little loss of time. It is so simply arranged as to be readily comprehended and understood. An admirable part of it is a Nosological Index by which the physician can readily refer to any case treated.

Pocket Case-Record and Prescription Blank Book. Cincinnati; Robert Clarke & Co., Publishers—1877.

This is at the same time a packet of prescription paper, a note book with appropiate headings for recording cases, and a complete visiting list, of convenent size and simple arrangement.

MARYLAND
MEDICAL JOURNAL.

VOL. II. BALTIMORE, DECEMBER, 1877. NO. 2.

ORIGINAL PAPERS.

UREA, AND ITS EASY ESTIMATION.

BY D. I. MCKEW, M. D., OF BALTIMORE.

(*Read before the Academy of Medicine, October* 16, 1877.)

Urea has not ceased, since its discovery in 1772 by Rouelle the younger, to attract the attention of physiologists and pathologists. Its formula indicates a very large proportion (seven-fifteenths) of nitrogen as entering into its composition; and it constitutes in fact the chief form in which the nitrogen of waste is eliminated from our bodies; thus furnishing us according to Flint, with a "measure of nutritive force and physiological waste." Although we have to consider it only as found in the urine, it may be recovered from the lymph, chyle and blood as well as from the sweat. Bartels mentions cases in which the compensating excretion by the skin was so great that the whole face and beard of the patients were frosted with crystals of urea.

The amount of urea daily thrown off by the kidneys is peculiar to each individual, and varies with the many changes of life. It is also increased by nitrogenous food, by exercise and by copious potations of watery fluid, as well as by alkalies and common salt. Alcohol, thein and caffein lessen its production. The question of the influence of muscular action upon the formation of urea has been recently investigated, in the person of the pedestrian Weston, by both Dr. Flint of this country and Dr. Pavy of England. The conclusions reached by these two observers are directly opposed to each other. Dr. Flint deduces, from his ex-

periments upon Weston, that "during the walk the nitrogen was in direct proportion to the amount of exercise; and, what was still more striking, the excess of nitrogen eliminated over the food taken almost exactly corresponded with a calculation of the nitrogen of the muscular tissue wasted, as estimated from the loss of weight of the body;" and that "it is impossible to come to any other conclusion than that excessive and prolonged muscular exertion increases enormously the excretion of nitrogen, and that the excess of nitrogen discharged is due to an increased disassimilation of the muscular substance."

These deductions are strongly oppposed by Pavy, who also availed himself of Weston's walks to study this question. He points out important errors in Flint's experiments, such as the estimation of the nitrogen in the feces as part of the excreted nitrogen of tissue metamorphosis, while the patient was taking large amounts of nitrogenous food; and also calls attention to the fact that the increase of urea found by Flint was in reality, not absolute, but only relative, and that this excess was caused principally by the diminution of the ingested nitrogen during the five days walk of Weston. Thus:

	Nitrogen ingested. GRAINS.	N. in Urine. GRAINS.	N. in Urine and Feces GRAINS.
5 days before walk,	339.46	293.18	315.09
5 " of "	234.76	337.01	361.52
5 " after "	440.93	339.17	373.15

It will be seen that the *absolute* variation in the urea during the walk was by no means such as to justify Flint in the use of the epithet "enormous". Pavy concludes from his researches that, although the elimination of urinary nitrogen is increased by muscular exercise, yet the increase is not nearly sufficient to give countenance to the proposition that the source of the power manifested in muscular action is due to the oxydation of muscular tissue. He also adds that the results show that nitrogenous matter is consumed in the system in larger quantity during exercise than during rest, and we may take it therefore that its supply should be made to coïncide. In fine, that the increased amount of urea formed during exercise is not due to muscular metamorphosis only, but to increased disintegration of nitrogenous matter

throughout the system at large. The influence of nitrogenized food in producing increased formation of urea can, it is reasonable to suppose, only be brought about after the vitalization of such pabulum and its subsequent death or degeneration either as molecule, globule or formed tissue. The elements of the blood are being continually renovated and each act of digestion is followed by the production of a new quantity of globules, particularly white ones, which are rapidly destroyed. This new formation is found to precede the increase of urea which occurs after digestion, and this increase lasts a little time after their disappearance; and to the destruction of these globules is probably due the elevation of the amount of urea excreted. During prolonged fasting the globules are formed at the expense of the tissues themselves and their destruction will explain the persistence of urea in the absence of nutrition.

Alluding to the difficulty of fixing a normal standard for urea, Bartels says: "We possess no measure of what the normal amount should be." He considers 0.8 per cent. as far from expressing the lowest possible minimum consistent with health; and has never found, even when fluids have been abstained from to a point of unendurable thirst, more than 6.10 per cent.

Franqué, quoted by Vogel, gives the following amounts as the daily excretion of a healthy man;

On animal food	51—92	grammes
" mixed food	36—38	"
" vegetable food	24—28	"
" non-nitrogenous food	16——	"

Robin estimates the average daily amount of urea at from 1.5 to 2.3 per cent. Lionel Beale states that a healthy man weighing about 140 pounds ought to excrete during the twenty-four hours nearly 500 grains of urea.

The share taken by the kidneys in the formation of urea has been variously estimated at different periods by writers on the subject; though at present it is generally conceded that the views of Bowman are correct, which restricted the function of the kidney to the simple separation from the blood of the elsewhere formed urea &c. The blood of the renal artery contains twice as

much urea as the blood of the renal vein; and the chyle and lymph have been found by Wurtz to contain even more than the blood.

While the kidneys are denied to be the source of urea formation, physiologists do not agree as to its actual place and mode of origin, whether its formation takes place throughout the system at large, as molecule after molecule of our tissues yields up its life, or whether there be some one organ more specially charged with the function of its formation. Some physiologists, as Hirtz, regard urea as an ultimate product of the oxydation of albuminoid matters, the scoria of animal combustion, and representing by its quantity the intensity of destruction. Robin and Bouchardat seem not to regard urea as a product of oxydation, but rather of a splitting up or "dédoublement" of the nitrogenous matters; yielding on the one hand inosite, cholesterine &c., and on the other hand substances rich in nitrogen, which, after successive steps of oxydation, are found as creatine, xanthine, sarcine, uric acid &c.

The fact that urea may be found in the liver has long been known; and the opinion seems to be gaining ground among physiologists that this gland is the principal source of urea formation. This belief has recently been reässerted by Dr Brouardel, who adduces many physiological facts in its support. Among other authorities on this subject, he quotes *Meissner* as entertaining the opinion that a "large portion of the albumen ingested, after having served as hœmoglobin is used up in the liver and separated into urea and non-azotized substances. *Gœthgens* states that "the production of sugar and of urea in diabetes result alike in the "dédoublement" of albuminoid matters, and that this relation exists not only in diabetes, but also in health. *Cyon* concludes, from the much greater quantity of urea found in the blood after its passage through the liver than before, that urea is formed in the liver. *Sigmund* in 1853 in demonstrating the influence of section of the pneumogastric, showed that the operation is followed by hyperœmia of the liver and an increase of from two to three grammes in the amount of urea secreted in twenty-four hours.

After relating many cases of diseased conditions of the hepatic structure and functions in which the amount of urea formed and secreted seems to bear a constant relation to the condition of the liver, and which are full of interest, Dr. Brouardel draws the following conclusions:

The researches of physiologists, Heynsius, Stokvis, Fuhrer, Ludwig, Meissner and Cyon tend to show that the formation of urea takes place in the liver.

The observations of pathologists show that under the influence of hepatic lesions the urea varies according to determinable laws.

In grave icterus urea diminishes and may disappear from the urine.

In the icterus due to phosphorus, occurring in man, or produced in animals, urea diminishes considerably, but after having undergone temporary increase after each ingestion of the poison.

In certain forms of pseudo-malignant icterus the variations of urea present at first the same characters as in malignant icterus (diminution, disappearance of urea, anuria); but the day on which a urinary crisis occurs, with considerable elimination of urea, announces convalescence. Frequently the volume of the liver from being retracted, increases at this period.

In simple jaundice the quantity of urea eliminated is not diminished. The urea may be considerable in amount in the beginning; but this increase does not last beyond the very commencement of the disease. The abundant secretion of urea permits favorable prognosis.

In suppurative hepatitis urea increases in the beginning, as announced by Parkes, (although verification of this is needed.) It is diminished when the abscess has destroyed a great portion of the liver, even though the lesion be accompanied by fever.

In biliary lithiasis causing obliteration of the choledoch duct and atrophy of the hepatic lobules, urea diminishes in quantity. This diminution seems more notable during the crisis of hepatic cholic and also, especially according to Regnard, in hepatic intermittent fever.

In atrophic or hypertrophic cirrhosis the quantity of urea eliminated is very small, even when the patient is taking nourishment freely.

In diseases of the heart, the development of cardiac liver brings, about considerable decrease in the secretion of urea. The variations of this amount, under the influence of rest and treatment, may serve to establish the prognosis of the disease..

In fatty degeneration of the liver occuring in phthisis and suppuration of bone, the urea excreted is marked by its small quantity.

In chronic affections of the liver (cancer, hydatid cysts,) destruction of a considerable portion of the hepatic substance causes a corresponding decrease in the amount of urea secreted.

In congestion of the liver the increased activity of the hepatic circulation is manifested in the quantity of urea eliminated.

In lead colic the liver retracts and the urea diminishes; as soon as the colic is past the liver returns to its normal size and the urea increases.

In temporary Glycosuria urea increases during the existence of this state, or at the moment of its disappearance. In diabetes the quantity of urea is sometimes greater than in any other disease. Does not so remarkable a resemblance in the variations of these two phenomena authorize the inquiry as to the community of their origin?

En résumé we believe we have established that in diseases of the liver the quantity of urea secreted and eliminated in twenty-four hours depends on two principal influences:

1. The integrity or alteration of the hepatic cells. 2. The greater or less activity of the hepatic circulation.

Hence results the deduction that, the kidneys being healthy, the quantity of urea eliminated by the urine may be used in the diagnosis and prognosis of diseases of the liver.

The failure of the kidneys to do their work of blood depuration, and the consequent retention and accumulation of urea have been long regarded as the source of those serious accidents classed under the head of uræmia. How far urea *alone* is to be looked upon as the noxa in these cases has not been definitely ascertained. Our imperfect knowledge of the intermediate steps in the metamorphosis of tissue and of the action on the economy of the products of these singly, together with the great difficulty

of their quantitative appreciation have hitherto very much embarrassed investigation. Cases of uræmic poisoning have been detailed in which no urea could be found in the blood; and very heavy saturation of the blood with urea is frequently unaccompanied by symptoms of poisoning. Owen Rees relates a case of long continued anuria in which he found more urea in the blood than he had ever known in the urine of Bright's disease. In this case the patient retained full possession of his faculties to the last. Behrends relates a case of absolute anuria lasting five days (122 hours) without the occurrence of uræmic symptoms. Most of us can recall instances in our own experience, especially after scarlet fever, where, with almost entire suppression of urine, there have been no uræmic accidents.

Notwithstanding these facts, the frequent recurrence of the same symptoms, in cases in which blood depuration is interfered with, will justify us in attributing the phenomena to the presence in the circulating fluid of *some noxious substance*, whether urea, or some one or other of the substances preceding it in the metamorphosis of tissue. The theory of Frerichs which attributes the symptoms of uræmia to carbonate of ammonia, formed in the blood from urea by some unknown, though suspected ferment, has fallen into disfavor; and that of Traube as to the influence of cerebral œdema is open to too many objections. Voit says with regard to the influence of urea "symptoms of disease originate whenever any substance, which does not belong to the composition of the economy, accumulates in any quantity within the body and is not eliminated from it. In suppression of the urinary excretion it is not one single element, like urea or uric acid, kreatin or kreatinin, the extractives or urochrom which does the harm; it is the mass together. Under similar circumstances some extraneous salt, like carbonate of ammonia or glauber's salt, etc. would produce the same symptoms."

In cases in which we have to fear the supervention of uræmic accidents we should however, consider it our duty to frequently examine the urine with a view to ascertaining its nitrogenous contents; and any very low percentage should awake our

anxiety and cause our best efforts to be directed to a relief of this condition. Unfortunately, in very many cases no warning is giving of the existence of this state of affairs, and blood poisoning, if at all suspected, is only then recognized when too late for remedy. I do not doubt that many cases of sudden death occurring in our midst, of persons who up to the fatal seizure were actively engaged in the various pursuits of life and freely enjoying its pleasures, are due to uræmia which an examination of the urine during life might have detected and possibly averted.

For the quantitative determination of urea in urine many methods have been proposed; the most popular and reliable of which was, until recently, the "Titrir" method of Liebig. This however, requires so much attention, occupies so much time, and demands such familiarity with chemical manipulation and procedures as to place it entirely out of use for the busy man of practice. The necessity for a simple, but equally reliable method having been recognized, very many modes were suggested from time to time, most of which however, were impractical, and none sufficiently simple for the needs of practitioners. Our offices are not adapted for the performance of nice operations in analysis; and accurate balances, hydrometric apparatus and the like paraphernalia are not comprised in our office furniture. For this reason the apparatus of Davy and its various modifications, as well as those of Bunsen, Millon, Boymond and Piffard have never come into general use. Nor do I think that the plan proposed by Dr. Fowler of New York, the apparatus for which I here exhibit, will be found convenient, requiring as it does, large quantities of urine, three determinations of specific gravity and considerable time. It is however, very accurate. The most simple, reliable, the most useful of all the plans hitherto proposed for the estimation of urea is that of Drs. Russel and West of London, which I will now show in operation.

The process is simply the decomposition of urea, by a solution of hypobromite of sodium, into carbonic acid, water and nitrogen.

This nitrogen is collected in a receiver graduated for the purpose, and showing at a glance the percentage of urea corresponding to the volume of the liberated nitrogen.

The whole operation can be performed in ten minutes and without any special knowledge of chemistry or its manipulative requirements. The only objection to the use of this plan is in the offensive and irritating character of the fumes of Bromine which is used in the formation of the decomposing solution. This may easily be avoided by having the mixture made by an apothecary. To those who would prefer to make it themselves I would suggest that it is best to make it in the open air: and that care should be taken not to inhale the vapor. By holding the bottle containing Bromine at a level below the face, its great specific gravity causes the vapor to fall away from the respiratory organs. The solution of caustic soda is also very injurious to paint and to all fabrics; and parts of the apparatus should not be laid when wet where the paint or covering of tables might be destroyed. For further information on this subject the *Journal of the Chemical Society*, for August, 1874, may be consulted. This simple mode of urea determination is wonderfully accurate. I had, in order to test its accuracy, some percentage solutions of urea made by a chemist, and in no case did the record of the apparatus vary one-tenth of one per cent. from the actual contents of the tested solutions. Higher proof yet of its value is furnished by the fact that Dr. Pavy used this plan to correct the results of Liebig's method in his studies on Weston.

Prof. Emerson Reynolds, of the University of Dublin, has recently yet further simplified the process. In a letter received recently from him he informs me that the process will be published in the Journal of the Royal Society of Dublin for this month with an illustrative woodcut. By the plan of Prof. Reynolds an ordinary minim measure is the only apparatus required, and if its accuracy should be equal to its simplicity this will certainly very soon supersede all other plans for the estimation of urea in urine. In all determinations of urea, it is necessary to take an average specimen of the whole amount of urine passed during the twenty-

four hours, as the urea contents of the urine vary very greatly both as to the period of the day when passed and the many other circumstances of our daily life. The urine passed on rising in the morning generally contains absolutely less urea than that excreted after exercise; and the amount of urea is rendered relatively lower by the larger amount of water in the urine secreted after large indulgence in aqueous fluids. It is also desirable that, when possible, one days urine should be compared with that of preceding and subsequent days in order to avoid sources of error. Let us hope that, since the estimation of the amount of urea has been made so easy as to be readily and without any trouble performed by the workmen of our profession, who are hourly brought into contact with the phenomena of disease in the human subject, more accurate and positive knowledge may be gained of the relations of this substance to disease than we could expect from the labors of chemists and physiologists in their laboratories, unaided by clinical observation.

REMARKS ON THE NATURE AND TREATMENT OF CONVERGENT STRABISMUS.

BY SAMUEL THEOBALD, M. D., SURGEON TO THE BALTIMORE CHARITY EYE AND EAR DISPENSARY; OPHTHALMIC AND AURAL SURGEON TO ST. VINCENT'S HOSPITAL, BALTIMORE.

(*Read before the Medical and Surgical Society of Baltimore, October 25th*, 1877.)

There are but few affections which come to the notice of medical or surgical practitioners, the nature, modes of origin, and proper treatment of which are more satisfactorily understood than are those of convergent strabismus; and yet, I think I may safely say, there are as few regarding which there exists so much misconception. Nor is this misconception, as might be supposed, wholly confined to the non-medical public. Indeed, it is occasionally encountered even in direction where we should least expect it, and where its existence would seem to be least excusable.

If I mistake not, I have yet to meet with a case of "cross eyes" in which an explanation of its origin was not, with entire confidence, vouchsafed by the patient himself or those in charge of him; yet I fail to recall more than one or two instances in which this explanation even approached the truth. A bonnet or hat worn in some unusual manner; a green shade which once on a time served to protect one eye during an attack of inflammation; a window, the light from which fell aslant the cradle of the patient when a baby; a problematical intestinal worm; a child with a like affection, from whom the patient caught the habit; these, and many others of similar import, are the explanations which are usually proffered with an astonishing amount of assurance, and which occasionally receive the endorsement of the family physician.

Again, in regard to the treatment, false notions are not less prevalent. One anxious parent feels herself justified in allowing her child to grow up with a disfiguring deformity, because, as she believes, the child was born so; another fears that the operation will injure the sight of the squinting eye; while a third has no fear for this eye, but concentrates all her anxiety upon the terrible risk to the other. A fourth has been assured that an operation will result in the squint flying to the other eye, or that both eyes are crossed and so nothing, of course, can be done; or, it may be, has been advised by the family practitioner, as I have known to be the case, to have nothing done, at present, as the child may quite likely out-grow it. For all such misconceptions there exists, in fact, very rarely the slightest foundation.

The origin of convergent strabismus is, as I have said, thoroughly well understood. In ninety-nine cases in a hundred *it is due to one of two causes*:—First, and in a far greater number of instances, to the existence of *hypermetrophia*; second, to *paralysis of one, or rarely of both, of the external recti muscles*. These two forms of convergent strabismus, differing in their modes of origin, differ also in their behavior and in the treatment which they require, and should be carefully distinguished the one from the other. In the first form, *which almost always makes its appearance in childhood*, the squint is slowly developed, an intermittent

squint, occurring usually during accommodation for near objects, preceding the fixed habit; the deformity may be said never to disappear of itself; and the treatment, the success of which, if completely under the surgeon's control, is assured, consists in the tenotomy of one, or both, of the internal recti muscles, together with, in certain cases, the wearing of suitable convex glasses. In the second form, *which may occur at any age*, the squint is developed, without the premonitory stage of intermission, in a few days, or perhaps even in a few hours;* the deformity may possibly disappear of its own accord, provided the paralysis upon which it depends is relieved; the treatment indicated is usually other than operative; and, where tenotomy is required, the attainment of a perfect result is not always so completely under our control.

How convergent strabismus is produced, as a result of paralysis of the external rectus muscle, is obvious: The internal rectus, no longer opposed by the action of the paralyzed muscle, rotates the eye inwards, and a convergent squint is the effect; just as paralysis of the portio dura of the seventh nerve, upon one side, is accompanied by a dragging of the mouth, ect., to the opposite side. The connection between this condition and hypermetropia is not quite so apparent, but may be readily made manifest.

Hypermetropia, as is well known, is that condition of the eye in which, owing usually to an abnormally short antero-posterior axis, parallel rays of light—that is those coming from distant objects—are brought to a focus by the refractive media of the eye, when the accommodation is at rest, at a point *behind* the retina, and not upon it as should be the case. This result being incompatible with distinct vision, the accommodative apparatus is

*Besides the history of the development of the squint, which will usually lead to a correct diagnosis as to its paralytic or hypermetropic origin, we may in almost every case readily discover the existence of paralysis, if it be present, by covering the non-squinting eye, and directing the patient, without turning his head, to regard with the other some object, such as a finger or pencil, held at first in front of it, and then slowly moved to the side of the supposed paralyzed muscle. If paralysis be present, the eye will be unable to follow the object in this direction, or, at most, will be able to do so in a very imperfect and uncertain manner; and at the same time the secondary squint in the unaffected eye will be excessive. Again, the squint will be found to increase in extent when an effort is made to turn the eyes in the direction of the paralyzed muscle, whereas it may entirely disappear when they are turned in the opposite direction.

unconsciously brought into play, in order, by increasing the power of the lens, to advance the focal point to the plane of the retina. In the hypermetropic eye, therefore, accommodation takes place not only in near vision, with convergent optic axes, as is the case in the emmetropic or normally shaped eye, but in distant vision as well, with the axes practically parallel.

Now there exists between accommodation and convergence —which always bear a fixed relation to each other in the emmetrope, accommodation never occurring without a proportionate degree of convergence, and vice versa—such an interdependence, that it is only by a tedious effort, and even then but to a limited extent, that they can be separately called into action. When, therefore, in hypermetropia, in order to render vision distinct, accommodation occurs in distant vision, without convergence, or in near vision, in excess of convergence, a wearisome effort is required; to escape which the hypermetrope is constantly tempted *to converge as much as he accommodates*, which means, for him, *to squint*. That this result does not happen much more frequently, is due to the fact, that, at first, each yielding to this disposition is accompanied by diplopia, or double vision, a condition so annoying, that to the many it proves a Charybdis more intolerable than the Scylla from which they would escape.

In illustration, let us suppose a case of hypermetropia of one-twelfth, by which we mean that, the accommodation being latent, a convex lens of 12″ focal length is required, in order that parallel rays may be brought to a focus upon the retina. Under such circumstances, distinctness in distant vision is only obtained by an exercise of accommodation equal to that which the emmetrope would require for vision at 12″. But, according to the law of association which I have described, a *convergence* for 12″ should accompany this effort of accommodation. If this be suppressed, accommodative asthenopia is the common result; if not, convergent strabismus is the alternative. In near vision the conditions are not changed for the better. The subject of hypermetropia of one-twelfth, wishing to see distinctly at a distance —say of 12″, as for instance in reading—must, while converging for 12″, exercise his accommodation to the same degree

that the emmetrope would at 6″; since, to the accommodation of one-twelfth required of the latter for vision at 12″, must be added the one-twelfth which has already been exercised in neutralizing the hypermetropia.

If, in order to escape the asthenopia, or to render the requisite degree of accommodation possible, parallelism between the latter and convergence be restored by a convergent squint, *the inward movement must of necessity be confined to but one eye;* since it is essential to the exercise of useful vision that one eye, at least, should be properly directed. *The popular notion that both eyes may be crossed is, therefore, entirely erroneous*, if we except those extremely rare cases in which paralysis of both external recti muscles has resulted, through the action of the opposing muscles, in an inward rotation of each eye; under which circumstances, this condition may be said to really exist.

This, however, may occur, and very fortunate it is for the patient if it do; *the squint may alternate*, that is to say, change from one eye to the other, either eye being used, indifferently, for vision. Judging from my own experience, however, this is a disposition very rarely met with.

I have mentioned the occurrence of *diplopia* in connection with the first yieldings to the temptation to squint, as the chief cause why hypermetropia is not more frequently accompanied by convergent strabismus. This effect, due to the image of objects viewed being formed, in the squinting eye, upon an eccentric portion of the retina, proves at first exceedingly annoying, for, besides the disturbance of vision to which it gives rise, it is frequently attended by giddiness and headache, as well. And so we soon find that an effort is made upon the part of the hypermetrope to escape these discomforts, *by an active suppression of the vision of the misdirected eye.* This, which is a cerebral process, is accomplished the more readily, since the image in this eye, because formed upon an eccentric portion of the retina, is less distinctly perceived than the one which, in the properly directed eye, is cast upon the macula lutea.

Now there follows in almost every instance, a most important result from this active negation of the retinal image of the squint-

ng eye; a result having a direct bearing upon the question of treatment: *The visual power of this eye soon becomes greatly impaired; a high degree of ambly-opia is developed, which is usually, if the squint be allowed to remain long uncorrected, irremediable.* Thus, it too often happens that the sight of one eye, so far as useful vision is concerned, is lost, as the result of convergent strabismus. Moreover, where, either through neglect or unwise counsel, this amblyopic condition has been allowed to supervene, the success of a tenotomy, which may be resorted to finally for the purpose merely of removing the unsightliness of the deformity, is, by no means, so assured; since we have no longer the important aid in obtaining a perfect result which is derived, where both eyes enjoy good vision, from the tendency they then exhibit to act in harmony, when once the proper direction of their axes is even approximately restored.

The lesson which these facts teach, and which it is the especial object of this paper to emphasize, is *the importance of early resorting to treatment for the correction of convergent strabismus.*

It has already been remarked, in describing the two methods in which convergent strabismus may originate,—as a result of paralysis of the external rectus muscle, and as a consequence of hypermetropia—that the treatment indicated will not be the same, in each instance. In the first form, constitutional treatment will usually be required, since the real cause of the squint is the paralysis of the external rectus muscle, supplied by the sixth nerve, and our primary efforts should be directed to the relief of this condition. In a majority of cases we will find that this, again, is dependent upon acquired syphilis; and, under such circumstances, mercury should be our chief reliance. From the administration of iodide of potassium, I have not been able to obtain anything like as satisfactory results, possibly because I have not given it in the very large doses in which it has been recommended. A solution of the biniodide of mercury in water, made by the addition of ten grains of the iodide of potassium to each grain of the biniodide, has, in my hands, proved so efficacious, and so manageable, that I seldom have occasion to resort to any of the other preparations of mercury, whether in the

treatment of this, or of other affections of the eye or ear of syphilitic origin. The dose of the biniodide is varied, according to the susceptibility of the patient and the object to be attained, from the one-fortyeighth of a grain to the one-eighth of a grain, rarely the latter, three or four times a day. By directing it to be taken *after meals*, I have found it less liable to disturb the bowels.

Besides syphilis, which may act in any one of several ways, as by producing neuritis, meningitis, periostitis, exostosis, etc., there are various other causes which may, less often, give rise to paralysis of the sixth nerve, and consequently to convergent strabismus; and which, according to their nature, will be found more or less amenable to treatment. Among these may be mentioned, inflammation of the nerve sheath or of the nerve itself of rheumatic origin, or simply the result of reflex action due to exposure to cold, etc. inflammatory affections of the brain or its meninges; extravasations of blood about the base of the brain; intra-cranial tumors, etc. Whichever of these conditions be present, the constitutional treatment will of course be guided by general principles. Counter irritation, by means of blisters applied behind the ears or to the back of the neck, will often be found useful, and in some cases electricity or galvanism is productive of unmistakably good results.

The prognosis in paralysis of the external rectus muscle is, on the whole, favorable; and in many cases the resulting squint will eventually be relieved, without the necessity of resorting to operative treatment arising. In other instances, however, the recovery is but partial; and the weakened muscle being unable to antagonize the action of its opponent, the internal rectus, the squint does not materially improve. Again, and less frequently, the paralysis remains complete in spite of judicious treatment. Under either of these conditions, operative interference becomes necessary. When the paralyzed muscle has already partially regained its power, a careful tenotomy of the internal rectus will often, by diminishing its strength and enabling the affected muscle to contract upon itself, thereby placing it in a more favorable state for recovery, result in a complete restoration of the normal

condition. When this treatment still leaves a residual squint, Mr. Brudenell Carter has recently suggested, as a substitute for the too often unsatisfactory operation of reädjustment of the paralyzed muscle, tenotamy of the internal rectus of the *opposite* eye; from which procedure he claims to have obtained very satisfactory results. We should not expect always to gain perfect harmony of movement between the eyes from this treatment, especially if the paralysis of the external rectus be complete; but I regard the method as more rational, and as calculated to give better results, than the operation of reädjustment.

In paralytic squint, it should be remarked, amblyopia of the squinting eye is less apt to occur than in the hypermetropic form. The reason is obvious: The squint is usually of high degree, and is, as I have stated, quickly developed. The diplopia, therefore, proves but slightly annoying, since the images are wide apart, and the one projected by the squinting eye relatively very feeble; and, as a consequence, the usual disposition to suppress the vision of this eye does not exist.

In the treatment of strabismus occurring *as a result of hypermetropia*, we have to deal with entirely different conditions. Here, as has been explained, the squint is due to the excessive accommodation required of the hypermetrope, and is the expression of an unconcious affort upon his part to restore the normal parallelism between this function and that of convergence.

In the use of convex glasses we have, as is well known, a means of reducing to the normal standard the accommodation of the hypermetropic eye. and, since we are thus enabled to do away with the cause of the squint, it would appear that we might in this way be able to correct the deformity itself. And, indeed, when this treatment is resorted to sufficiently early, it usually proves entirely efficacious. In order, however, to be successful, the wearing of convex glasses must be begun *before the strabismus has become confirmed*—that is during the premonitory stage, previously described, when the squint is intermittent in character, occurring only during accommodation for near objects. After the deformity has become fixed, we shall find this method entirely unreliable. Under each circumstance tenetomy, to be supplemented in some cases

by the use of convex glasses, is the only means of relief at our command. Where the squint is slight, a tenotomy of the internal rectus of the squinting eye will usually correct it. If it exceed 2‴ or 2½‴ in extent, however, it will be found necessary to divide the internal rectus of each eye. Where our object is to obtain as great an effect as possible from the tenotomy, the conjunctiva should be dissected up from over the tendon, and not only the latter but the neighboring connective tissue divided. On the other hand, we may greatly lessen the effect, by being careful to sever only the tendon itself, and to disturb as little as possible the connective tissue. The subconjunctival operation of Critchett is, I think, to be preferred to any other. In performing it, I am in the habit of using a pair of slender, blunt pointed, straight, scissors, and the crochet pointed strabismus hook,* which I devised several years since.

In all modern operation for strabismus, we are instructed to divide the *tendon* of the muscle *at the point of its attachment to the sclerotic*. Formerly this rule was not observed, but, on the contrary, the muscle itself was often severed at some distance from its sclerotic attachment. As a consequence of this, the posterior segment of the muscle retracted into the connective tissue sheath by which it is surrounded; union between the two parts was prevented; and, the function of the muscle being entirely destroyed, the eye, not unfrequently, to use a popular expression, "went the other way." In other words, a *convergent* squint was transformed into a *divergent* one—a bad matter was made worse, and the operation, as then performed, deservedly fell into disrepute. From the modern operatton of tenotomy no such result should ever occur.

In conclusion, I may state, in answer to the objections which have been mentioned as being commonly urged against operations for strabismus, that *the operation is attended with absolutely no risk to the sight either if the eye upon which it is perforomed, or its fellow;* that it is followed by little or no suffering, and does not necessitate confinement to the the house; that the danger of

*For description of this instrument, see Am. Journal of Med. Sciences for April, 1877, r the last Am. edition of Soelberg Well's work on diseases of the eye,

the squint flying to the other eye is wholly chimerical; that children are rarely, if ever, born with this defect, and, if they were, this fact would not of itself constitute a valid objection to the performance of an operation for its correction; and finally, that it is a great and inexcusable mistake to suppose that the deformity may be outgrown, and, on this account, to advise the postponement of operative treatment. Indeed, regarding the very great probability of the development of amblyopia in the squinting eye, I can see no justification in postponing the tenotomy, as is often done, even in the youngest children.

REPORT OF CASES.

EPISTAXIS.

BY BOLLING W. BARTON M. D. OF BALTIMORE.

To stop bleeding from the nose, it is not always enough to blow styptic or astringent powders into the nostrils; and the injection of stronger agents while it may stop the flow of blood, is often attended with very objectionable accidents. I believe that I once endangered the life of a patient, by the injection of Monsel's solution into his nostrils. Some of the solution flowed back into the larynx and trachea, and produced most painful symptoms at the moment and was followed by a degree of œdema of these parts which proved unpleasantly serious. The injection may have been done in a bungling manner, but even with skilful hands it is easy to see that such an accident might happen. Besides this the injection of this liquid is almost certain to give rise to quite profuse salivation, and if it pass into the stomach, to vomiting which is likely to undo all that has been done to arrest the bleeding. The last resort to which we flee when the simpler methods fail, that of sound and tampon is certainly most efficient in stopping the hemorrhage, but is also a most troublesome operation if the patient should happen to be a peevish child. I have been told also that the presence of the tampons gives rise to peculiarly painful sensations.

In view of this heap of difficulties, I propose a simple method to which the foregoing objections can not be urged and which has proved on three occasions all that could be desired in checking the nose-bleed.

I used the Monsel's Iron Solution but applied it with feathers. The wing feather of a common fowl is most readily gotten. The barbed end, of course, is dipped into the solution and pushed rapidly back into the nostral, and turned one or twice in the fingers. In a few seconds the feather refuses to yield to pushing or pulling, showing that a firm clot has been formed. The projecting end is clipped so as not to inconvenience the patient, enough of it being left to be easily seized and removed when acquired. If one feather should fail to stop the blood, a second may be introduced in the same manner alongside of the first one. At the end of a certain time the clots slough away from the nasal walls, and may be removed without trouble.

This is a very simple procedure, and I doubt whether it will fail when any other method would succeed.

TRANSLATIONS.

Physiological Properties of Bromohydric Ether. By A. Rabuteau, (*Comptes rendus Acad. des Sciences*, 1876).—Bromohydric ether (C^2 H^5 Br.) has an agreeable odor, and produces, when absorbed by the respiratory passages, absolute anæsthesia more rapidly than chloroform. This ether has no caustic or irritating properties as compared to chloroform. Its exhibition is without danger. It is preferable to chloroform, as it is entirely eliminated by the respiration.

Bunion or Deviation of the Great Toe. By H. Mongold, (*These de Paris, No.* 178, 1876).—The author reports in his work 100 observations, of which 33 were of men and 67 of women; the age varying from 30 to 60 years. From the minute examination of his cases Mongold believes that anatomical explanations should be rejected, such as relaxation of the internal lateral ligament, displacement of the sesamoid bones, etc. He thinks the real cause purely constitutional and whether the deviation be unilateral or bilateral with or without bunions, it should be considered as a manifestation of arthritis. The shoe is only an occasional cause and the bunion which apparantly comes from rubbing, is only produced after the head of the metatarsal bone commenced to project.

THERAPEUTIC VALUE OF ALUM IN AFFECTIONS OF THE CONJUNCTIVA. By HUGO MAGNUS, (*Deutsche Med. Wochensch.* 11, 37, 1876).—The writer uses a large crystal of alum filed into the shape of a crayon. He applies it to the conjunctiva in the ordinary way. The reaction is very rapid, but the pain lasts but a moment. Irritable persons and children bear it very kindly, although the modifications, which this caustic induces are very durable.

TREATMENT FOR PROLAPSUS OF THE RECTUM. By E. DELENS, (*Journ. de Therap. No* 4, 1876).—Allingham's treatment modified is made use of by this author. He cauterizes that portion of the intestinal mucous membrane which projects through the sphincter with fuming nitric acid, then the tumor is smeared with olive oil, and the mass returned to its natural place. A tampon is then introduced, which over-distends the rectum, and a bandage is applied to the perineum. The patient should be kept in bed for five or six days, and the peristaltic action of the intestines should be interrupted by morphia. Faradization of the sphincter is indicated daily for five minutes at each sitting, The cauterization causes inflammation of the submucous cellular tissue and the distension admits of permanent adhesions, which, hold the bowel in situ, and prevent further prolapsus.

CONTRIBUTION TO THE HISTORY OF GASTROTOMY. By WOLZENDORFF, (*Berlin klin Wochensch. No.* 31, *page* 455, 1876).—In the seventeenth century gastrotomy was twice performed by German physicians for foreign bodies in the stomach. The report of these operations is borrowed from the oldest work on legal medicine published in German; Vernünftiges Wundenurtheil, by John Nicholas Pfeizer, of Nüremberg, 1672. The following is the report of the first case:

At Prague, on Easter monday, Matthaeus, a Bohemian peasant 36 years old, a facetious man, was amusing himself by partially swallowing a horn-handle iron knife as a pastime. Inadvertantly, he allowed the knife to slip too far down his throat and he was unable to recover it as usual. After having retained it in his stomach for seven weeks and two days, the point of the knife worked its way externally through this organ near the cardiac orifice. This was aided by epispastics. Seeing this condition, the patient

prayed the nurses to extract the instrument by dilating the wound. The most celebrated surgeon was sent for, Florinus Mathis, of Brandenburg. This gentlemen performed the operation the first Friday after Penticost at 7 o'clock in the morning. The patient recovered, in spite of contrary belief of the opinion of the doctors in general, and he even married. The knife extracted from the stomach had a length of nine inches and had assumed such a color, that one would have imagined, it had sojourned in fire all this long while.

J. D. F.

REPORTS OF SOCIETIES.

MEETING OF THE CLINICAL SOCIETY OF BALTIMORE.

At the last meeting of the Clinical Society, Dr. I. E. Atkinson read an interesting paper on "Unilateral Idiopathic Cutaneous Atrophy." A patient had presented himself for treatment, in September last, at the special Dispensary, complaining that his left leg was gradually becoming smaller than the other and he was afraid it would waste away to nothing. He was a driver and twenty years old. General health good but had noticed, first about eight years ago, a small white spot near the umbilicus. Then there came areas of spots, some of them mottled in appearance, running downwards on the thigh. The disease had started with the spot near the umbilicus and has gradually worked its way down. On the thigh the spots changed, somewhat resembling erythema. As the skin at different points became affected, large tortuous veins could be seen, while the number of hairs was diminished. The skin did not wrinkle but was quite smooth, there being no natural lines or folds, and was very thin. On the anterior part of the thigh the skin was normal. Measurements were taken of each leg at various points which showed a difference of from three to seven centimetres in circumference. The corium, papillary layer and rete mucosum were all diseased. This disease differs from the xeroderma of Hebra and other authors. Whether it was caused by disordered nutrition or by any change in the vaso-motor system could not be determined.

Dr. T. R. Brown showed a specimen from a child, which he spoke of at a previous meeting, viz: a case of numerous growths in the vagina of a child less than two years old. Since the first appearance

and during the numerous removals of many of these quickly returning tumors the child had become gradually weaker, and at last had died of exhaustion. The uterus and vagina were exhibited and excited much interest and comment.

Dr. Tiffany suggested "fœtal inclusion," which many pathologists were now writing about, as the cause of the disease in the present case and thought it worthy of special attention. He also related a somewhat similar case in a negress who had borne 13 children. She had suffered from a disagreably fetid discharge from the vagnia for two years. When the finger was introduced, the vagina was found to be so full of growths it felt like a bunch of grapes. Like Dr. Brown's case in one particular the neck of the uterus appeared to be entirely gone; but not like it in others since the tumors extended completely by round the wall of the vagina. A thorough examination had been made after death. Dr. T. considered it a case of carcinomatous papilloma.

Dr. Russel Murdock related a case of astigmatism followed by microphthalmus in a child two years old. The right side was greatly affected, the left slightly. Donders has said this trouble was often connected with depression of the malar bone. In this case the child had inherited both, the astigmatism coming from the mother, and the deformity from the father, who were each affected in this manner differently. Dr. Murdock did not agree with authors in speaking of astigmatism as physiological. In many cases there was perfectly normal vision in this respect.

Dr. H. Clinton McSherry opened the discussion of the evening with a casefully prepared paper on "Laryngeal Stenosis," a disease which he said was not fully treated of in text books, but was in fact worthy of much attention.

R. B. MORISON

SELECTIONS.

CONSIDERATION OF SEVERAL REMEDIES.

[*From Cincinnati Medical News*]

CARDIAC STIMULANTS.

At the very head of this class stands digitalis. In organic disease of the heart (no longer considered a rare disease of childhood), the prognosis as to compensatory relief under its use is

certainly more favorable than in the same lesions in adult life. In mitral regurgitancy the bruit is increased by digitalis, but the cough and asthmatic dyspnœa are relieved. The infusion of digitalis often affords great relief in various forms of dropsical effusions; yet it is, properly speaking, no more a diuretic than tannic acid, which, as we know, also increases the flow of urine in certain intances. A failure or paucity of the urine occurring while digitalis is being administered should be regarded as a sign of danger. I have only once noticed the blueness of the sclerotica described by some writers as a toxical symptom. I have not found it necessary to give large doses in cardiac diseases of children, but it has been necessary to continue it for a long time. I gave it in one case for a year with but a few short intervals; in three others it was given consecutively for over six months, resulting in relief of every symptom except the bruit itself. I have at no time observed any of the cumulative action of the drug, and it very rarely disagreed with the stomach. Cinnamon water appears to be a good corrigent for the nausea which digitalis may produce.

Belladonna stimulates the heart indirectly by its paralytic effect upon the inhibitory nerve centers. Irregularity of the heart's action not unfrequently has its origin in the brain rather than in the heart. Severe and prolonged mental application may thus often disturb the rythmical contraction of this organ by a stimulation of the inhibitory centers. As a stimulant to the capillary circulation, belladonna is exactly suited to a relaxed condition of the skin, as well as to the more complex diseases of the spinal cord. Children tolerate the drug beyond the age ratio followed for other medicines.

CARDIAC SEDATIVES.

The indication for this class of medicines in the inflammatory and febrile conditions of childhood is more positive than in adult practice. Such conditions are often of asthenic type, and most of the febrile conditions are of an irritative character, the heart's action is greatly accelerated, and its force is also increased at the expense of the muscular power. In these conditions the most valuable agent is aconite, and the most reliable preparation is the

tincture of the root. Its action as a local sedative also, when applied to any part of the mucous tract, is a great advantage where the stomach is irritable and medicines cannot be retained. The smallness of the dose—one-fourth of a drop being sufficient for an infant—and its tastelessness when properly diluted, are points of great importance. Veratrum viride cannot, I think, be compared with it in value in childhood; although it is considered to be a safer agent, the nausea and purging induced render it unfit for many cases.

SPINAL SEDATIVES—CONIUM.

As an agent affecting the circulation in the brain and spinal cord, and as a paralyzant of voluntary muscles by its effect upon the afferent spinal nerves, conium has not yet attained the high place in general practice which it deserves. Perhaps the two circumstances which have led to this are, first, that in diseases requiring the use of conium, as in spinal irritation, congestion, meningitis, etc., the medicine is seldom employed in sufficient dose; second, there is very little of the drug which is reliable. Conium should be administered as digitalis; *i. e.*, for its effects alone, without reference to quantity. Dr. Harley has declared that conium is to the corpora striata, the smaller nerve centers, and the entire motor tract, "what opium is to the brain." Since I have been less careful in regard to the dose, I have had better results from the use of conium. Some years ago I made extensive use of extract of conium in cerebro-spinal meningitis, and with marked benefit. The only preparation which is at all reliable is the fluid extract.

SALICYLIC ACID.

The effect of this acid in controlling acute rheumatism is truly wonderful. Much of its value no doubt depends upon the sedation exerted by it upon the circulation, as a consequence of which pain is lessened and temperature reduced. I have found the pain of migraine and other neuralgias yield very promptly to its use. As a local application to the nasal and pharyngeal mucous membrane in diptheria and other diseases it is unexcelled. Its caustic nature demands care in its use, especially in young children, and

the following formula makes an excellent and safe mode for its administration:

℞ Acidi salicylic - - - - ʒ jss.
Ammoniæ citratis - - - ʒ ss ad ʒ j.
Syrupi cinnamoni - - - ℥ jss.
Aquæ cinnamoni - - - ℥ ss.

M. Ft. solut. Teaspoonful every second hour for a child of five years suffering with rheumatism.

The putrescent character of the stools in children suffering with summer diarrhœas is at once changed by salicylic acid, and a corresponding improvement in the condition of the little patient noticed. Its power over living germs renders it at once invaluable when contagion is feared. Prof. Abelin, of Stockholm, says that "in children, doses large enough to bring down temperature acted as a poison," and cites a case in which twelve grains caused death. In such doses it seemed to be a corrosive poison. In smaller quantities it lowers temperature without exerting any beneficial effect upon the course of the disease.

JABORANDI.

Most of the experiments have been performed with an infusion of the drug in substance, and in this way when given in five or ten grain doses it has uniformly produced its characteristic effect. Now that we have its active or alkaloid principle (pilocarpin), it is probable that we may eliminate some of the hitherto ascribed properties as being common to the piperacea. Its action is upon the glandular system. Therefore, as a therapeutic agent, it must be limited to the restoration of the function of the skin, salivary glands, and the mammæ, or to establish vicarious action by them.

Its use in acute febrile excitement or during the eruptive stages of the exanthemata is opposed to the principles of sound therapeutics, and I am not surprised that disappointment has attended its administration where the vitality of the skin is impaired, or where perspiration and transpiration are checked by reason of high temperature. By the use of stimulating diuretics, we do harm in certain diseases of the kidneys, no less than when we employ stimulating diaphoretics to restore the function of the skin which is already suppressed by over stimulation. The indi-

cation is to lessen the force of the heart and bring down the temperature. If this be done by proper means, the perspiratory glands will resume their functions without the aid of jaborandi. The same applies to the salivary glands during the stage of eruptive excitement in scarlatina, and a failure of this drug under the conditions should not weigh against its usefulness.

Pilocarpin, in one-twelfth of a grain, equals five and a half of the drug in effect. It is an oily substance like conia, but not possessed of odor. It has little effect upon the heart and upon temperature, and the sense of debility after its use in health must be no argument against its use when the system is oppressed by dropsy (ascites or anasarca), for this same sense of weakness will be turned to strength by the use of this agent. By far the most numerous cases of dropsy in childhood are post-scarlatinal, and the testimony of those who have used jaborandi is in its favor. In certain dropsical effusions it offers the best and most prompt relief. The propriety of its use in cardiac dropsy, except for temporary relief, may well be doubted. It is best in dropsy depending upon disease of kidneys, as vicarious action is the only hope of even temporary relief. In cardiac dropsy it must not be made to supplant digitalis.

Ergot produces vaso-motor spasm, and consequently increased arterial tension, through its action upon the nerve centers within the cranium. This fact, if it be conceded, gives to the drug a therapeutic importance, in treatment of diseases affecting the circulation, unequaled by any other medicine, unless it be determined that ustilago is more powerful. I have made extensive use of ergot based upon the above theory, and so far with the best results. The inportance of ergot as a therapeutic agent in congestions of the brain and spinal cord in childhood, in catarrhal and mucous diseases, etc., renders it especially proper to include it in the medicines of childhood.

CHLORAL HYDRATE.

It must not be forgotten that the symptoms relieved by chloral hydrate and potassium bromide are dependent upon hyperæmia of the nerve centers in the brain or cord, and that sudden exhaustion is attendant upon many diseases of infants; *e. g.* cholera,

diarrhœa, etc., in which convulsions usually terminate life. Chloral and bromide would but increase the trouble, and stimulants alone are indicated. The apyretic action of chloral hydrate renders the mixture additionally valuable in high temperature when convulsions threaten.

The local use of hydrate chloral is scarcely less valuable. I now depend upon its prompt and pleasant action in diphtheria; to abort abscesses, and to prevent the formation of pus in sinuses, as a gargle in stomatitis and in scorbutic gums of childhood, it is unexcelled, as well as in the angina of eruptive fevers. Chloral hydrate and bromide of potassium are contra-indicated in chorea. The rapid anæmia in these cases is of itself sufficient reason to predict what practice confirms. In whooping-cough a combination of the bromides, as in the formula of Dr. Brown-Sequard, will, if pushed, always give satisfaction. As a general thing in such cases the doses are far too small, and the interval too long.

Treatment of Thrush (Aphthæ), *Philadelphia Medical Times.* —Dr. E. Ory (*La France Med.*, 1877, p. 419) has collected the following formulæ. It must be remembered in treating aphthæ that certain affections of the digestive organs—troubles of nutrition, inflammation of the buccal mucous membrane, with augmented acidity of secretion—are conditions favoring the development of the fungus which constitutes the affection. The physician, therefore, must address himself as much to the general condition as the local affection. According to Blache, when the general condition is good it suffices to touch the mucous membrane a number of times daily with the finger, or, better a pledget of lint on forceps, covered with the following:

℞ Glycerin. (pure), ℥ i;
Aluminis, ʒ iv.—M.

The mouth should be frequently washed out with Vichy water, either pure or diluted with one-fourth part of milk, or, better still, with decoction of krameria.

Trousseau recommends the following gargles:

℞ Sodii borat,
Mellis rosæ, āā ℥ ss.—M.

Or, better:

℞ Potassi chlorat., ʒ iv.
Mellis rosæ, ℥ ss.—M.

The honey may sometimes be replaced advantageously with syrup of krameria. In rebellious cases, Trousseau practised cauterizations with nitrate of silver:

℞ Argenti nitrat., gr. xvi;
Aquæ destillat., f ℥ ss.—M.

This solution, however, is apt to discolor the teeth and therefore may be advantageously replaced by solutions of the sulphates of zinc or copper.

Bretonneau used to use powdered calomel, mingled with mucilage, as a topical application. Sée rubs the affected spots with a bit of rag, and then bathes them with this mixture:

℞ Glycerinæ, f ʒ x;
Amyli,
Sodii borat., āā gr. viii.—M.

West indicates an analogous formula: he does not use preparations containing honey, on account of their liability to ferment:

℞ Sodii borat., gr. xxx;
Glycerinæ, f ʒ i;
Aquæ, ad f ℥ i.—M.

He applies this very carefully on a clean linen rag, after having had the mouth thoroughly washed out with warm water. In the rebellious forms, he cauterizes with nitrate of silver solution, of the strength of about one grain to the ounce.

Parrot uses the following.

℞ Glycerinæ,
Mellis rosæ, āā ℥ ss;
Potassii chlorat, ʒ iss.—M.

Müller suggests:

℞ Acid. salicylic., gr. xvi;
Glycerinæ, ʒ vi;
Aquæ. ad f ʒ ii.—M.

ABSTRACTS AND EXTRACTS.

THE GERM DOCTRINE AND SEPTICÆMIA.—Dr. M. A. E. Wilkinson, President of the British Medical Association, in his address. spoke of the germ doctrine and its applications. He said :—

We will inquire how it stands with this doctrine in regard to traumatic septicæmia and pyæmia. You are all aware that foul ill-conditioned wounds are attended with severe, often fatal, symptoms, consisting essentially of fever of a remittent type, tending to run on to the formation of embolic inflammations and secondary abscesses.

The notion that septicæmia is produced by bacteria, and the *rationale* of the antiseptic treatment which is based thereupon, is founded on the following series of considerations :—

1. It is known that decomposing animal substances, blood, muscle, and pus, develop, at an early stage of the process, a virulent poison, which, when injected into the body of an animal, produces symptoms similar to those of clinical septicæmia. This poison is evidently not itself an organism ; it is soluble, or at least diffusible, in water, and it is capable, by appropriate means, of being separated from the decomposing liquid and its contained organism. When thus isolated, it behaves like any other chemical poison ; its effects are proportionate to the dose, and it has not the least power of self-multiplication in the body. To this substance Dr. Burdon Sanderson has given the appropriate name of pyrogen. It is the only known substance which produces a simple uncomplicated paroxysm of fever, beginning with a rigor, followed by a rise of temperature, and ending (if the dose be not too large) in defervesence and recovery.

2. We know further, from the evidence I have laid before you, that decomposition cannot take place without bacteria, and that bacteria are never produced spontaneously, but originate invariably from germs derived from the surrounding media. We are warranted by analogy in regarding pyrogen as the product of a special fermentation taking place in decomposing albuminoid mixtures, but we cannot name the particular organism, nor the particular albuminoid compound which are mutually engaged in the process.

3. In the third place, we know that when a wound becomes unhealthy, as surgeons term it, the discharge becomes offensive, in other

words, decomposed, and when examined under the microscope they are found to swarm with organism resembling those found in all decomposing fluids. Meanwhile the patient becomes feverish, and suffers from the train of symptoms which we call septicæmia.

It is a natural inference that what takes place in decomposing blood or muscle in the laboratory, takes place also in the serous discharges and dead tissues of the wound. These become infected from the surrounding air, or from the water used in the dressings, with septic organisms; on that follows decomposition and the production of the septic poison, or pyrogen; the poison is absorbed into the blood, and septicæmia ensues.

It was the distinguished merit of Lister to perceive that these considerations pointed to a means of preventing septicæmia. He argued that, if you could prevent the access of septic organisms to the wound, or destroy them there, you would prevent decomposition, prevent the production of the septic poison, and thus obviate the danger of septicæmia.

The Use of the Trephine in Depressed Fractures of the Skull (*The British Medical Journal*, July 21, 1877).—Dr. Robert S. Hudson, after alluding to the change in surgical opinion which has occurred since the time of Pott, and to the brilliant results which that surgeon obtained by the use of the trephine, proceeds to question the propriety of that change, and asks that the surgical practice of the mining districts around Cornwall be given its due weight in the consideration of the question. For many years the operation of trephining for depressed fracture of the skull has been of weekly, almost daily, occurrence, and, according to Dr. Hudson, a very large percentage of the cases recover. If death ensue, there are generally obvious causes to account for it, such as diffused injury with laceration of brain-substance, and fractured base; success usually depends on an early operation, as soon as possible after the accident. He sums up his remarks as follows:

"1. Surgeons practising in the mining districts around Redruth and Camborne have had, especally in former times, unusual opportunities for the study of head-injuries,

"2. In compound fractures of the cranium, it has been the invariable practice of the most experienced to elevate depressed bone by means of the trephine or Hey's saw, without waiting for symptoms of compression or irritation.

"3. It is believed by those surgeons that no danger whatever attaches to the operation *per se*; pyæmic risks are unknown; and recovery is the rule after trephining operations.

"4. So firm is popular belief in the efficacy of the trephine, that a surgeon who hesitated to employ it, under the plea of waiting for symptoms, would assuredly suffer in reputation, if, in the event of death he were not put on his trial for manslaughter.

"5. Hospital statistics place herniotomy among the most dangerous operations; but the statistics of hospital surgeons in their private practice show to a demonstration that an operation for the reduction of strangulated hernia is practically harmless, even when it is necessary to open the peritoneal sac, and that the risk is directly proportionate to the length of the ignorant delay which has been allowed to exist previous to the operation. (Holmes's System of Surgery, vol. iv. page 692.) Although the parallel is not in every respect a complete one, we employ the trephine at the earliest possible period, and aim at preventing mischief by removing all sources of irritation.

"6. No matter how deeply prejudiced against the trephine our young surgeons may be when fresh from the schools, a few years' experience generally dispels the illusion; they become converts to the practice of the districts, and cease to look on its employment as antiquated surgery."

In *Guy's Hospital Reports* for 1877, Mr. Davies-Colley contributes two interesting cases in which the trephine was successfully employed, and adds, "These two cases support the rule which most of our text-books either miss or fail to impress, that in punctured fracture of the skull it is the surgeon's duty to trephine at once, without waiting for symptoms of compression or irritation."—*Med. Times.*

Action of the Sulphate of Quinine on the Fœtus and the New-born Child.—In a paper published in the *Annales de Gynecologie* M. Burdel maintains that when a pregnant woman, no matter what be the term of the pregnancy, is attacked with intermittent fever, she is liable to abort seven times out of ten, unless she is treated with quinine. It is very generally believed that this drug will itself cause abortion, but M. Burdel reports several cases which demonstrate that enormous doses of it can be taken without injury, to the embryo, and without shortening the course of pregnancy. He denies that malarial fever can be transmitted to the fœtus in utero, or to the nursing infant

through the milk of the nurse. He has never known infants to suffer from fever or other malarial symptoms before the fourth month. He has, on the contrary, frequently observed young infants fed entirely on the mother's milk to remain fresh and rosy, although the mothers themselves where devoured by fever and reduced to a state of profound anæmia. This immunity, however, does not persist after the process of dentition begins.

M. Burdel has devoted an important portion of his paper to the study of the action on the new-born child of the milk of a woman who is taking sulphate of quinine. Nothing is more variable and inconstant than the transmission of medicines, and of quinine in particular, by means of lactation. He has known children to be fatally poisoned by the milk of women who had been brought under the influence of this drug. He has deduced from his observations a certain number of facts, on which rules for the administration of quinine may be based. Thus he found that the drug was absorbed more rapidly, and was contained in larger quantities in the milk when it was given on an empty stomach; on the contrary, when administered with the food, it appeared in the milk less rapidly and in smaller quantities, and was consequenty less toxic. As the infants advance in age they become less susceptible to the influence of the quinine in the milk, and after they attain the age of five or six months cases of poisoning rarely occur. When it becomes necessary to administer quinine soon after delivery, its injurious effects on the child may be prevented by giving it with the meals or with some food, and by emptying the mother's breast artificially three hours after its administration. When these precautions are observed, M. Burdel claims that the infant may be allowed without fear to nurse the mother during the entire time that she is taking the quinine.—*Journ. de Med. et de Chir.*, October, 1877.

EDITORIAL

Diptheria—This disease still prevails, to an alarming extent, in some parts of North Carolina, notably about New Berne, as we learn from the state papers, as also in Maryland and Delaware.

We would be glad if one or more of the physicians, in the localities in which it has appeared, would send us reports of the disease and the treatment pursued.

And, just here, we copy from *The Proceedings of the Medical Society*

of Kings, a portion of an article on "Diptheria and Alcohol" read before that Society by Dr. E. N. Chapman, of Brooklyn. He considers alcohol an antidote, or unfailing abortive, in this disease and says:

"All local treatment is worse than useless. It exhausts the nerve-force and induces greater injection of the blood-vessels, thus favoring the exudation."

"Alcohol neutralizes the diphtheritic poison, sets free the nerves of animal life, subdues the fever and inflammation, destroys the pabulum that sustains the membrane, cuts short the disease, conquers its sequelæ, and shields other members of the family from an attack. Upon the subsidence of the fever, as is usually the case in from twenty-four to thirty-six hours, a purulent secretion begins to loosen the membrane, and soon, thereafter, to detach it in flaky, ragged fragments. This process may take place, and recovery be possible, even when the larynx and trachea are implicated. The membrane is seldom renewed, when this secretion is maintained by a steady use of the remedy. Alcohol is as antagonistic to diptheria as belladonna to opium, or quinia to malaria. Like any other antidote, it must be given promptly at the outset, as otherwise its potency will be lessened, perhaps lost altogether."

"Alcohol does not act as a stimulant, nor induce any of its ordinary effects. Enough may be given to cause profound intoxication in health, and yet there exist no signs of excitement nor odor in the breath. Hence at a late stage of the disease it is of little avail."

"Should the administration of alcohol anticipate grave symptoms by thirty six hours, recovery is assured; should the epiglottis be implicated, a croupy cough present, or the blood much contaminated, recovery is possible; but should the larynx be involved so as to impede the aëration of the blood; recovery is improbable, though, even then, the secretion of pus may detach, disintegrate and supplant the membrane."

"All cases of croup, on the failure of the usual remedies to subdue the harsh, rasping cough, should have alcohol added to the treatment; all cases of scarlatina, on the appearance of a membranous patch in the faucus, should be considered as diphtheria; all diseases associated with diphtheria, inasmuch as its presence casts a baleful shadow over every other morbid condition, should be disregarded, or at least, receive secondary attention only; all the sequelæ of diphtheria—paralysis, albuminuria, hemorrhage, anæmia, etc., etc.—should, whatever else might be demanded, be subjected to this all-potent remedy."

"Quinia is an efficient ally to alcohol. It energizes the ganglionic nervous system—a member of the vital forces not less important than the vascular—and thus enables the organism to right itself and resume its functions."

"Iron plays an unimportant part at first; but later, when the diphtheritic poison has been neutralized, it restores color to the blood, imparts force to the nerves, and awakens active nutrition—matters of no light moment in most cases. At an early day, even food and other means to support nature are of slender advantage; but when alcohol and quinine have tempered the violence of the symptoms, they are imperatively demanded."

"The power of alcohol and quinine to prevent blood-degeneration and nerve-exhaustion, depends on fresh air, bodily rest, mental quietude, and disuse of lowering medicines. So, also, the power of iron and food to restore the fluids and solids to their normal standard, is only operative by observing the same general caution as to impure air, active exertion, and heroic treatment of individual conditions."

"Alcohol and quinine have no greater power to cure than to prevent diphtheria, provided they are given promptly and continuously. With thorough ventilation they are all that is needed to purify a room or a house, unless there exist some extraneous source of infection, demanding special attention."

"PREVENTIVE MEASURES."

"During the prevalence of diphtheria in a family, those exposed directly or indirectly to infection should be protected by having a free circulation of air through the house, and by taking a certain amount of alcohol each day, until the patient has recovered. My usual prescription is here given: Quinoidine, Cinchoniæ sulph., of each, 25 grains; Acid. sulph. aromat, 2 drachms; Sp. frumenti, 8 ounces. Dose, fifteen drops to a tablespoonful, four or five times a day, according to the age of the subject. To all young children and to many adults, I am in the habit of directing brandy or whisky alone, in the above proportions. For the patient, quinia is substituted for the quinoidine, and the interval between the doses shortened to one or two hours. Six drachms an hour is the maximum quantity for an adult."

MEDICAL SOCIETIES.—The different medical societies in this city have been organized and have entered upon their Winter meetings with more promise of usefulness and success than for some years past.

The attendance of members has been good, and the interest manifested, by the presentation of pathological specimens, reading of papers and free discussions of medical questions, indicates a degree of activity which should be encouraged. Nothing is so conducive to the good of the profession as free interchange of views and opinions among its members, and there can be no better method of securing such a result than by the encouragement and attendance upon local medical organizations. Independent of the benefits which result from free debate and liberal interchange of views between medical men, there is often an outgrowth of social feeling, which developes a higher ethical standard between rival professional men than can be secured in any other manner. In this day of charlatanry, the profession should foster every organization which can give it strength. It is our purpose to encourage, in every manner, every medical society which seeks to promote the good of the profession. The proceedings of such societies, when forwarded to us, will be published when their prominence justifies us in so doing. There is one point we feel justified in urging: The membership of the different medical societies in this city is large, but it by no means takes in the majority of the profession here. There are a good many eminent physicians in this city who are not identified with a single organization, and yet who are capable of contributing largely to the usefulness of such societies were they to become active members. We urge these gentlemen to come out and lend their experience and wise counsel to such organizations. Every physician who is not, should at once identify himself with those of his professional brethren who have banded themselves together for the purpose of collecting and disseminating useful scientific knowledge.

A Case is reported from France in which a result, similar to the famous St. Martin case, so familiar to all readers, has been obtained by a surgical operation. A man swallowed some mineral acid the caustic action of which closed the esophagus. Gastrotomy was successfully performed. A tube was introduced through which the patient was fed and experiments on digestion and on the properties of the gastric juice were made. Nothing new has been learned further than was demonstrated by Dr. Beaumont in his experiments on St. Martin. This case will, however, afford phisiologists a chance for further research.

The Presbyterian Eye and Ear Hospital.—Baltimore is so

sadly, deficient in charity Hospital accommodations for the sick, that we hail with delight any increase of free bed Hospitals for our working classes From the above heading it will be seen that members of the Presbyterian Church, in the city of Baltimore, have established a Hospital for the treatment of Eye and Ear diseases, a charity which Presbyterians offer to the suffering poor in our midst, regardless of age, sex, color, nationality or creed. It is a charity in the widest sense under Presbyterian management. The very large dwelling No. 77 E. Baltimore street, has been selected on account of its central position and easy access by city cars, and in this building an OUT-DOOR and an IN-DOOR Department, the usual Hospital organization, has been established. The medical department will be under the management of Prof. J. J. Chisolm, M. D., of the University of Maryland, through whose efforts the charity has been developed. The establishment of this Free Hospital will be a great blessing to the poor, who for successful operations for the restoration of sight need isolation from the atmospheric contamination of a general hospital. We heartily wish Prof. Chisolm God speed in his good work.

DR. LANE, of San Francisco, Cal., performed splenotomy recently with a fatal result. The adhesions were so extensive as greatly to embarrass the operation. Transfusion was resorted to, when the hemorrhage called for it, with temporary success, the bleeding, however, continued after the wound was closed and the transfusion tube becoming choked, the patient sank before the defect could be remedied. The cases are rare in which attempted extirpation of the spleen is admissible or even justifiable considering the few favorable results.

THE U. S. MARINE HOSPITAL SERVICE.—During the fiscal year 1876–7, the collection of Hospital dues from seamen amounted to $372,467.70, and the total expenditures of the service for the same period amounted to $368, 395.28, leaving an excess of receipts over expenditures of $4,070.42. The number of sick and disabled seamen furnished relief was 15,122, and the average cost per patient $24.04, which amount includes medicines, medical attendance, subsistence and nursing, together with salary of officers, fuel. light and repairs to Hospitals and all incidental expenses. This is a reduction of $14.37 per patient since 1870, before the reorganization of the service. In other words, the service is now self sustaining, while for twenty successive years

previous to its reorganization by its present Chief, Surgeon General John M. Woodworth, an average annual appropriation of nearly $200,000 by Congress was found necessary to sustain it, exclusive of cost of fuel, light, Hospital repairs, etc., which were then paid out of other appropriations.

The Hospital Gazette and Archives of Clinical Surgery, edited by Edward J. Bermingham, M. D., and Frederick A. Lyons, M. D., of New York, have made their first appearance as a consolidated journal, and will hereafter appear semi-monthly under the above title. The journal is devoted largely to Hospital reports, clinical lectures and original papers, from representative men in the profession. An able corps of colaborators and reporters will assist the editors in maintaining it as a representative journal of the country.

We congratulate the editors upon the attractive appearance of their new journal and bespeak for them great success.

Medical Students.—We understand in the neighborhood of three hundred medical students have matriculated at the two medical schools in this city and that this is the largest class which has assembled for five years past.

As a large majority of the medical students who come to Baltimore are from the South, this increase is to be explained by the more prosperous condition of affairs in that section of country.

Transactions of the Medical Society of the State of North Carolina.—Twenty-fourth annual meeting, held at Salem, N. C., May 22, 1877. Salem: Printed by L. V. & E. T. Blum.

The transactions of this meeting of the Society, not unlike former ones, is very interesting. The meeting was largely attended by many of the most prominent physicians in the State, and the transactions were of a character to entertain as well as instruct.

Many valuable contributions, in the shape of papers and reports of interesting cases, were made by various members of the Society.

Dr. Eugene Grissom, Superintendent of the State Insane Asylum, read a carefully prepared and highly instructive paper on Epilepsy, which is well worth an attentive perusal.

Dr. Geo. A. Foote, the retiring President, delivered an address on the subject of "Hypodermic Medication," in which he treats the sub-

ject in a manner evidencing patient research and laborious application. That he has assiduously studied and painstakingly tested the use of medicine subcutaneously no one who reads his paper can doubt. In his address he relies mainly on his own experience, in the hypodermic use of medicines, which has been satisfactory in the highest degree. From his experience he inclines to the belief that morphia should seldom be used alone, but in conjunction with atropia, in proportions to suit each case, with a view to prevent the nauseating effects of the opiate. He cites numerous cases in which various medicines have been used hypodermically with great success—particularly, morphia and atropia after amputations; opium, atropia and aconite in rheumatism; chloroform in sciatica; quinia in fevers; strychnia in paralysis and nervous disorders, and in overcoming the depression following the use of morphia; ammonia in bites of venomous reptiles and the virus of rabies and ergot in post partum hemorrhage and in lingering cases of labor.

We regret that space will not admit of our analysing this and the many other valuable papers, read before the Society, as they deserve. It is greatly to be regretted that Dr. J. F. Shaffner's admirable address on the "History of Medicine and Surgery" was not published, in full, in the transactions of the Society. This, and several other very interesting papers and reports, read and delivered before the Society, are lacking to make the transactions complete.

We would advise those who have not seen a copy of the transactions of the North Carolina Medical Society, for 1877, to get one as it will well repay perusal. The secretary's address is: Dr. L. Julien Picot, Murfreesboro', N. C.

BRIEFS.

Death Under the Administration of Nitrous Oxide and Ether.—A death has recently taken place at University College Hospital during anæsthesia from nitrous oxide gas and ether. The patient was a woman fifty-five years of age, who was admitted to the Hospital in consequence of strangulated femoral hernia. She was taken into the operating-theatre, and gas and ether administered by means of Clover's apparatus. In about four minutes she was well under the influence of the anæsthetic, without having exhibited any

previous excitement. Taxis was then applied, when almost immediately the patient became pale and commenced vomiting stercoraceous matter. At the same time the respirations became weak, and the pulse at the wrist imperceptible. The doors and windows of the theatre were at once thrown open, and artificial respiration was carried on for a few minutes. As no obvious benefit resulted an enema, containing three ounces of brandy, was administered. Fumes of strong ammonia were applied to the nostrils, and ammonia injected into the right median basilic vein, but all without any good result, and the patient died within about ten minutes from the onset of the alarming symptoms. At the autopsy, stercoraceous matter was found in the trachea and right bronchus. The right side of the heart and the large veins were full of dark fluid blood. The ventricular walls were thin and flabby, and the cavities slightly dilated. The left ventricle was empty. The arch of the aorta presented numerous patches of atheroma.—*Brit. Med. Journal.*

Death from Ether-Inhalation.—An inquest was held last week at Manchester on the body of a lad who died in the hospital of the City Workhouse while under the influence of ether, which had been administered previous to performing an operation on the hand. According to the evidence of Mr. James Hardie, M. D., Surgeon to the Workhouse, the deceased had been operated on twice before, when chloroform had been administered; but as on the last occasion alarming symptoms presented themselves, it was now thought safer to give ether. A small quantity of ether was applied to the nostrils, and it seemed to take effect easier and quicker than usual. A few minutes after, and just as the operation was about to be commenced, the patient seemed to faint, and the breathing to be arrested. The galvanic battery was applied over the course of the phrenic nerves, but it only produced two or three gasps; and this as well as other means of restoring consciousness was unsuccessful, the patient dying whilst on the operating-table.—*Medical Times & Gazette.*

Death during Etherization.—Dr. Benjamin W. Robinson, of Fayetteville, N. C., reports ("Va. Med. Monthly") the case of Mrs. McNeil, who consulted him on account of a tumor of the breast, which he extirpated while the patient was under the influence of ether. The

tumor returned, and the operation was repeated in ten months. Again, after the lapse of six months, a third operation was performed, and Squibb's ether was administered in a conical inhaler. During the inhalation the pulse improved in volume and force. In about twenty minutes after the operation was begun, it was announced that, with gradually increasing pallor, the radial and temporal pulse, which had been failing since the operation begun, were extinct, and that the respiration was irregular. Brandy was administered subcutaneously, the foot of the operating table raised, and artificial respiration practised. The lapse of a few minutes promised thorough resuscitation, the patient became conscious, the horizontal posture was restored, and the operation was continued without the inhalation of any more ether. In a few minutes the patient vomited, after which it was found that she was sinking. All efforts at resuscitation now proved unavailing.

Death during Anæsthesia from Ether.—Anæsthesia was induced in a female, aged twenty one, who was to undergo amputation of the leg at Westminster Hospital, London. Chloroform to the extent of two drachms was given on lint, and the patient quietly and quickly became insensible; then ether, poured upon a sponge placed in a felt cone, was substituted for the chloroform. The amount of ether used was two ounces, and the patient was moribund in about two minutes after the ether was begun. The chloroform was given by itself for about three or four minutes, and ether by itself for two or three minutes.—*Brit. Med. Jour.*

Marks of the True Physician.—The true physician is quiet and unpretending, yet firm, prompt and attentive. He is kind and courteous in deportment, especially in the sick-room. He is jealous and careful of his reputation but does not seek to establish it by unprofessional or unfair means, and is guarded and respectful toward the opinions and character of professional brethren. He is temperate, and should be a Christian man—ready, after exhausting his skill and resources for the relief of physical suffering, to administer a balm of hope and comfort to the despairing spirit. He should be an observing man—studious, watchful, and progressive, and should read, contribute to, and *pay for* at least one medical journal.—*Southern Medical Record.*

RESEARCHES OF LAST YEAR.—Forty-five scientific expeditions were fitted out during the year 1876. Of these, twenty-four had their field in Europe, seven in Africa, five in America, and two in Oceanica. The objects of the researches included archæology, natural history, anthropology, medicine, statistics, comparative legislation, comparative history of religions, philosophy, geography, geodesy, and astronomy. In addition, organized researches were also made among archives and in libraries.

SCLEROTIC acid, the active principle of ergot, isolated by Dragendorff, appears in the American prices current at $25. per ounce. It is administered hypodermically in doses of one-sixteenth to one-twelfth of a grain.

AMYL-NITRITE IN WHOOPING COUGH.—1 to 3 minims repeated every 2, 3, or 4 hours, according to the age of the child and the urgency of the symptoms. No antagonism exists between this remedy and quinine.

THE VIRGINIA STATE MEDICAL SOCIETY met in Petersburg on the 23rd of October. Dr. John Herbert Claiborne was elected President for the ensuing year. The next meeting will be held in Richmond.

DR. PAUL F. EVE, the distinguished Southern Surgeon, died in Nashville, suddenly, on Nov. 3rd.

DR. PHELPHS CHAMBERLAIN, an aged and highly respected member of the profession, died in San Francisco, Cal., on the 19th. of Oct

BOOKS AND PAMPHLETS.

WHAT ANÆSTHETIC SHALL WE USE? By Julian J. Chisolm M. D., Professor of Ear and Eye diseases University of Maryland, and Surgeon in charge of the Baltimore Ear and Eye Institute. For sale by Kelley & Piet.

The above pamphlet is a reprint from a paper published in the October number of the Richmond and Louisville *Medical Journal*, in which the author has carefully reviewed the history of the different anæsthetics, which have been, and still are in use for the purpose of showing how far, and under what circumstances, it is safe to use anæsthetics, and then to express boldly his confidence in chloroform in preference to ether in every instance in which the administration of an anæsthetic is admissible.

This is one of the strongest papers on this subject we have yet seen. The author has in support of his own personal experience, which has been more extensive, perhaps than that of any practitioner in this city, drawn largely from the experience of eminent American and European surgeons. He argues ably that when intelligently administered chloroform is as free from danger as ether and as an anæsthetic is far preferable. We must confess that, after a Hospital Residence of three years in which daily administrations of the two anæsthetics have been employed, by the different Hospital surgeons, we are prepared to accept and endorse the views entertained by Prof. Chisolm. In the many hundred cases in which we have seen chloroform administered we have yet to see the first alarming effect, and we believe, with Prof. Chisolm, that when bad results do occur it is from faulty administration and not from the anæsthetic.

The object of Prof. Chisolm's paper is not to furnish a full statistical account of the number of deaths from ether or chloroform, but rather to show that if a dozen surgeons in various parts of the world can be found who have given chloroform several thousand times, and without a single fatal case, that others can do the same and that when trouble follows in the practice of one surgeon he should look to himself rather than to the article which he uses for his discomfiture. We can recommend this paper to the profession as discussing a question of great practical interest and as well worthy of careful consideration.

APPLIANCES.

THE SPERMATIC TRUSS.

This is a late invention "for the cure of Spermatorrhœa or Seminal Weakness, and to sustrain and subdue inordinate sexual desire, and to prevent the chordee attendant, frequently, upon Gonorrhœa."

We have one of these Trusses, but have not yet had an opportuni- to of testing it but from the numerous testimonials it has received from prominent physicians, who have tried it, we are led to believe that it meets a need long felt.

A writer speaking of it says :

"The Spermatic Truss possesses of itself no curative properties, more than does a hernia truss, but it acts by taking advantage of the physiological actions of the genital organs, *in short, while worn, it prevents erection of the penis.* The penis being secured in an entirely recumbent position, it is impossible for an erection to occur, and the increased sexual desire, and seminal loss, consequent thereto, are avoided."

We suggest a trial of this appliance which can be obtained of Druggists and Instrument dealers, or of the manufacturers, Cooper Truss Company, Pittsburg, Penn. 1-0

MARYLAND
MEDICAL JOURNAL.

VOL. II. BALTIMORE, JANUARY, 1878. NO. 3.

ORIGINAL PAPERS.

LARYNGEAL STENOSIS.

BY H. CLINTON M'SHERRY, M. D., LECTURER ON DISEASES OF THE THROAT AND CHEST, IN THE SUMMER COURSE OF THE UNIVERSITY OF MARYLAND, AND CLINICAL ASSISTANT TO THE PROFESSOR OF DISEASES OF THE THROAT AND CHEST.

[*Read before the Baltimore Clinical Society*]

Laryngeal Stenosis is an affection that is but little dwelt upon in treatises on laryngology, and for this reason, as well as the fact of having seen a number of cases under treatment, but more especially on account of having had under observation, a short time since, an interesting case of this trouble, both as regards the condition presented and the result of the remedial measures taken, I have been influenced to select it as the subject of discussion for this meeting.

The case that I refer to, B. A., a man 22 years of age, applied for relief at the special Dispensary for the throat and chest. He complained of great difficulty of breathing, which was very evident from its wheezing, stridulous, character, his distressed appearance, the bluish discoloration of the skin, and the loss of his natural speaking voice which had then become a stridulous whisper.

He stated that four or five years before he had had a chancre, and afterwards, underwent the ordinary course of syphilization. When the ulceration of his throat had progressed for some time he had medical advice, after which his general condition seemed to be improved, until some months subsequently, he did not

remember exactly how long, he began to notice that he got out of breath on making any exertion, sooner than he did formerly. This difficulty of breathing had gradually increased to such an extent that when he applied at the dispensary he was unable to do any work, or make any exertion whatever. His voice he thought had been changed from the time he first had the sore throat, but it had become "small by degrees and beautifully less" until he lost it.

Having gotten from him the history of his case as well as he was able to give it, I proceeded to make an examination of his throat. On inspecting the pharynx, the velum was seen to be adherent to its posterior wall with the exception of a small opening, about three lines in diameter, on the right side. Of the uvula, there was no vestige. Several cicatrices of ulcerations were seen in the pharynx. Examining still further with the laryngoscope, the epiglottis was seen to be drawn down to one side and the ventricular bands so much thickened and indurated as to very nearly conceal the vocal chords, only the posterior portion of the left chord being visible.

Cicatrices of a grayish white color were seen on the left side at the root of the epiglottis, on the left ventricular band and around the left arytenoid cartilage, none of them being of a particularily large size. On the right side of the larynx, I detected no scars whatever. There was scarcely any visible movement of the left, and but little of the right arytenoid during the inspiratory movement, and even during the effort of full inspiration, no view of the trachea could be obtained. On attempted phonation the vocal chords approached each other to such an extent as to bring the entire left chord into view, while the inner free edge of the right chord was now to be seen protruding beyond the ventricular band, and both of them were noticeably thickened and reddened, but their coaptation was not perfect, a slight opening always remaining between them.

This was, in fact, a case of stenosis of the larynx, principally due undoubtedly, to cicatrizations of ulcerations in the larynx, which had by the attendant contraction of the tissues, caused a constriction of the glottis, by interfering with the mobility of the

arytenoids, and the condition was still further aggravated by the thickening of both the ventricular bands and the vocal chords. The whole trouble being the result of syphilization, in all probability, would either never have occurred, or at any rate would have been much ameliorated, had proper attention been given to the local treatment of the throat, during the secondary and earlier stages of the tertiary syphilitic disease.

This is almost the unvarying history of laryngo-stenosis, for its occurance in any other manner than as the result of the chronic laryngitis of syphilis is very exceptional. It is never a sequence of the extensive ulcerations of chronic tuberculous or carcinomotous laryngitis, as observers have decided that those ulcerations *never* cicatrize.

The rima glottidis, is sometimes narrowed it is true, in both chronic idiopathic and tuberculous laryngitis. by a thickening from fibrinous infiltration of the submucous tissue of the ventricular bands and vocal chords or of the subglottic mucous membrane, but rarely to such an extent as to cause a marked constriction ; but there is a condition that does constitute a true stenosis, which though nearly always a concomitant of syphilis, may, I believe, occur in connection with the other forms of laryngitis. I refer to those cases where the inflammatory exudation becomes organized into fibrinous bands, which stretch from one part of the larynx to another, very often from one vocal chord to the other, and by gradual contraction, draw the two together and hold them fixed. Of this variety of stenosis there are a number of cases reported by Mackenzie, Schrötter and others, and I have myself seen two cases, in one of whom nearly the anterior half of the glottis was closed in this manner, while in the other there was a single membranous band extending across the glottis from the middle of one chord to the other.

Again a Laryngeal Stenosis is occasionally met with as the result of the inhalation of flames or from scalds of the larynx, by which perichondritis or chondritis is occasioned or an inflammation is produced which has gone on to ulceration and cicatrization.

As regards the diagnosis, the discovery of an obstruction in the larynx is readily enough detected, by the appearance of the

patient, The changed voice, the distressing stridulous breathing, the rales that are often heard at some distance but are always very marked on auscultation of the larynx, and the percussion dulness, that can be detected, not only of the chest, but also of the larynx by very acute examiners, but exactly the character of the obstruction can only be appreciated by laryngoscopic examination.

Though laryngo-stenosis is as I have said in nearly all cases dependent on syphilitic disease, constitutional remedies will never effect a cure; to prevent death from suffocation, local treatment must be primarily and immediately undertaken, always with the object of overcoming the constriction in such manner as to allow the lungs again to receive the normal amount of oxygenated air which has for a time been cut off from them. It has long been the custom in this emergency to obviate the trouble by the creation of a second one which is but little better than the first, and even of late years since the laryngoscope has come into almost general use, those physicians who do not use it and probably for that reason undervalue its usefulness, will, when they find the breathing interfered with by an increasing obstruction in the larynx, hardly hesitate, without much investigation as to the nature of the trouble or as to whether it be in itself remediable or not, to make a hole in the neck, by which air is certainly permitted to pass to the lungs, but the original trouble is in nowise benefitted nor its progress stopped.

It was for the benefit of these sufferers, with whom the canula had become a "vade mecum," that Schrötter undertook to devise some means of dilating the constriction, in those cases where there happened to be a laryngo-stenosis, by which the necessity of wearing the canula they had been doomed to bear silently to the grave might be obviated. In this connection he says in the Jaresbericht for '71–'73. "I now give my method which I have practiced for more than a year past, for the cure of those cases of stenosis of the larynx which often compel the patient to wear the canula after laryngotomy has been performed. It is the most ardent wish of the patient to do without this instrument less I believe on account of the discomfort of wearing it and the necessary

manipulations, for most persons accustom themselves very quickly to both, and also content themselves with their indistinct speech, than it is on account of the peculiar fear which they occasion to the uninitiated and the continual questionings of curious strangers. The usual treatment designed to cause the reabsorption of any exudation present amounts to nothing, and the application of electricity to restore the movements of the rigid arytenoids is also useless.

I thought for a long time of some means to help these sufferers by mechanical remedies. I wished by the passage of elastic catheters of increasing thickness to widen the stricture more and more, and finally, when the normal dimensions of the larynx were permanently restored, to cause the outer opening to heal. I considered it better to proceed from above than from below on account of having more room to work in. In the further pursuit of my investigations, I first became, aware of the experiments of Dr. Bracke, who, however, only in one case and that not carried out to the end, employed a rectangular double canula in whose lower limb there was a second narrower one, which, by means of a spring, passed upwards through an opening in the canula, into the stricture of the laryngeal canal.

This method from underneath, of which I am free to confess I have not the preliminary experience necessary,—appears to me to be only available for those cases where the stricture already, or perhaps after my treatment, has a certain width.

I imagined that the passage of suitable thin English catheters, from above into the larynx, was an extremely easy matter, but I was not a little astonished, when by the help of the mirror, as well as the usual surgical procedure of seeking the laryngeal surface of the epiglottis with the index finger of the left, and using this as a guide to the passage of the catheter with the right hand,—I met with some quite important difficulties which I will describe later.

At all events I soon convinced myself that the passage with the aid of the mirror was, under all circumstances, the surest plan, even if one cannot prevent in the first attempt the catheter, which has not yet been shoved through the stricture, from being thrown out of the larynx by the choking movements of the patient.

In these trials the canula was removed, and if the catheter luckily passed the stricture and the point was visible in the opening of the wound of the throat, I took a small eye tenaculum and drew it out through the outer opening. The catheter therefore is passed through the mouth, through the stricture and out again through the opening of the wound, and in this position is allowed to remain for a time. But it was very soon apparent that this method had some weighty disadvantages, it was in the first place not possible, in this way, to allow the catheter to remain in long enough; and then very often the wound in the throat shrunk so that one had great difficulty in replacing the catheter; secondly the curving of the catheter out of the larynx into the canal of the wound, and removing it again is very troublesome to the patient, thirdly the catheters are soon spoiled by the hooking with the tenaculum and become so rough that they cannot be passed again without injury to the patient.

I now had catheters of increasing thickness made whose wires protruded out of the otherwise closed extremity and terminated with a button corresponding to the thickness of the instrument.

Now after the canula has been removed this instrument is introduced through the entire stricture and allowed to remain as long as possible, with due regard to the retraction of the wound of the throat, then the catheter is removed and the canula introduced. The catheter is again passed through the stricture into the opening in the canula and, then by means of a small pair of forceps, especially constructed for the purpose, fastened so securely to the neck which exists between the button, already described, on the end of the wire which passes through the catheter, and the end of the catheter itself, that it cannot be thrown out again and may be left there for several hours.

The passage of the catheter into the canula was not, however, an easy matter with all patients; for in many cases the stricture was very crooked, in consequence of which the catheter yielded and went sideways, and one could not tell, on account of the choking movements of the patient, whether it had passed the stricture properly or if it had been thrown out of the cavity of the larynx again. But this whole plan was not a success. In the

first place the patients bit through the part of the catheter that remained in the mouth with a tolerable degree of rapidity, and secondly it was only possible for them to take fluid but no solid nourishment. The instrument, therefore, had to be removed at each meal time. This objection was gotten rid of in the following way.

I had cylinders four centimetres long, in regularily increasing sizes constructed, at first of hard rubber and afterwards of tin, (after the manner of Trendelenberg for the trachea). Through these there passed a small brass rod terminating below in a neck on which is placed a somewhat conical shaped bulb, and at the upper part, about half a centimetre above the level of the bougie, in an eye through which a string about a foot and a half long is drawn.

Now in order to pass the bougie into the larynx, the thread by means of a wire, bent hook shape, is drawn through a tube formed like a catheter which terminates in a handle and around two wings that project on either side of the handle, the thread is tightly wound. By this means the bougie and tube become, so to speak, as one. But as this arrangement permitted a twisting movement of the bougie, the end of the tube was provided with a little projection which fitted into a shallow groove in the top of the bougie. Now after these bougies have been permitted to remain in the larynx as long as possible without the canula, for the reason already mentioned, they are introduced into the opening in the canula and there again fastened by means of a small pair of forceps, the string is then made free and the guiding tube removed. In this way the bougie is fastened perfectly safely, so that it can neither be drawn out above nor fall below, and only the string hangs out of the mouth of the patient, which gives no trouble either during chewing or swallowing.

The entire manipulation is accomplished at the morning visit, and the bougie is allowed to remain in position both day and night until, the next morning and is then only removed either for cleaning or to be replaced by a thicker one.

In referance to the form, it is still to be mentioned that I began with every new patient with the introduction of a round bougie

of the thickness of an exploration catheter (for such a one would always occasion the least reaction when used as a pathfinder). As soon, however, as the glottis had improved by a few lines in width, I applied those of increasing thickness which were triangular in shape to correspond with the more or less opened glottis."

Sometime after the writing of this Dr. Schrötter adopted a modification of the manner of holding the bougie in position after its introduction into the larynx, that is, instead of grasping the button on its end with a small pair of forceps, which was objected to principally on account of its allowing an upward and downward movement of the bougie to such an extent that is occasionally passed out of the stricture, the inner canula itself which was two centimetres long was provided with a curved rod which projected from its upper wall three centimetres, this was passed through a canal in the lower end of the bougie after it had been placed in position. By this means the movement, the greatest objection to the other process, was prevented.

This method for dilatation of the glottis was found, in many instances, to give the most satisfactory results as to the cure of those cases, in whom the constriction had become so great as to necessitate laryngotomy; but to avoid doing this operation in the earlier stages of the trouble, when the respirations are carried on with tolerable ease through the larynx, was a great desideratum.

During the winter of '74 and '75 that I spent in Vienna the use of tubes intended to be passed into the larynx for the gradual dilatation of laryngo-stenosis was being introduced by Schrötter.

These tubes are made of hard rubber, and I have seen them to

EXPLANATION OF PLATE.

FIG. 1. Tin bougie for the treatment of laryngo-stenosis, with the thread drawn through the tube.

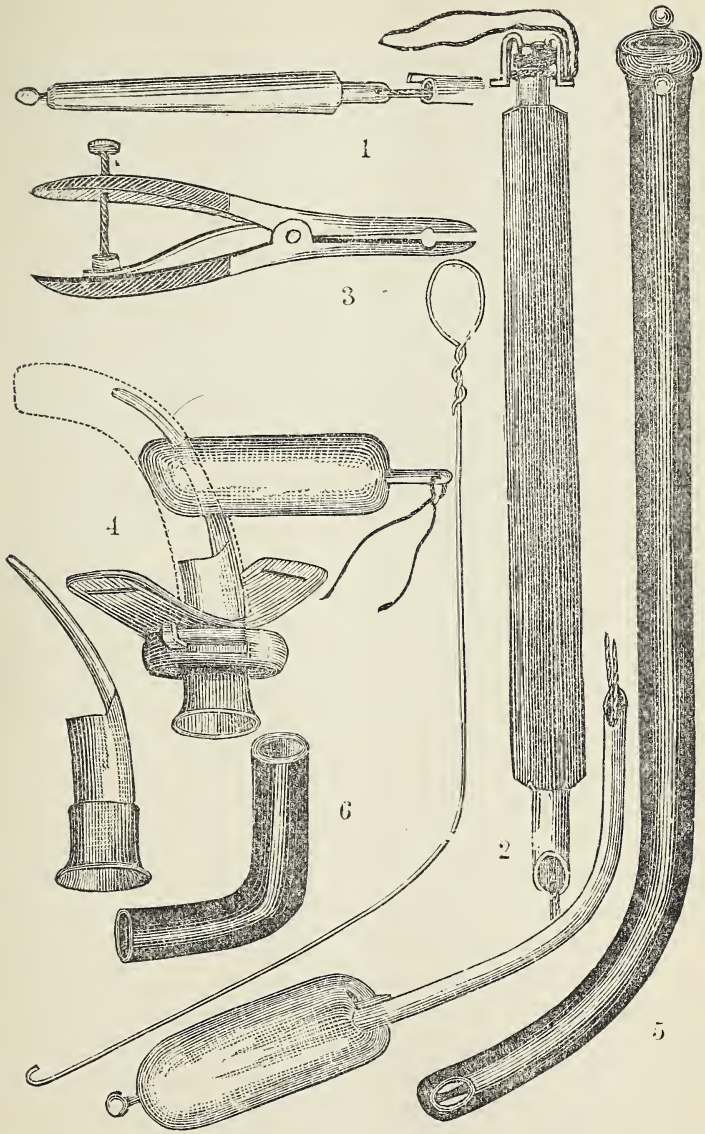
FIG. 2. A tin bougie of greater diameter; the thread from this is drawn through the tube, by means of the wire that is seen alongside of it, and wound tightly around the handle.

FIG. 3. Small forceps to fasten the bougie, by the slender neck on the end of it, in the canula.

FIG. 4. The improved method of holding the bougie in position after its introduction into the larynx.

FIG. 5. Hard rubber tube.

FIG. 6. Curved cylinder to be inserted into the oral end of the tube to hold it in position.



Instruments used for the treatment of Laryngeal Stenosis, after th method adopted by Dr. Schrotter.

be of service not only in the trouble for which they were intended, but also in one instance as a means of keeping up respiration, through the larynx, in a case of true croup, where a child that was nearly asphyxiated was kept alive until the arrival of a surgeon, who had been sent for to perform tracheotomy. They are about ten inches long of gradually increasing diameters, have large perforations at the end, and are hollow throughout their caliber. They have a long curve of about a third of their length for introduction into the larynx and at the oral end of the instrument a curved cylinder of about two inches in length is inserted and turned off to one side, to prevent their slipping. The introduction of the tubes is effected in this way; having slightly warmed and well oiled one it is passed behind the epiglottis, and placed over the orifice of the glottis, then by keeping up constant and steady pressure it will, if it be of a proper size, presently glide through the opening into the trachea, and the breathing through it will be instantly apparent by the tubular sound, and may be felt by placing the hand over the end of the tube.

On explaining on one occasion the uses of the laryngeal tubes to a well informed physician he said "you assert that you pass these tubes through the larynx, dont you most often introduce them into the œsophagus?" As this gentleman gives his attention principally to surgery he had no doubt seen in Erichsen or elsewhere, extracts from the report of the commission of the New York Academy, in regard to the earlier experiments of Dr. Horace Green, in the passage of elastic catheters through the larynx. The words of the report in one place are "We witnessed in cases 11 and 21 the fallacy of Dr. Green's opinion as to the success of his experiments, though based on so large an experience. In both cases while positive that he had successfully passed the instrument (an elastic catheter) into the trachea, *the patient vomited through the tube*, and thus demonstrated his error." And Erichsen in referring to the same matter says, "In the course of these experiments a point of much interest was elicited by the commission, viz; that a patient might blow out a lighted candle, or collapse or inflate a bladder attached to its free extremity, through the tube, even though it had never entered the trachea,

but had been purposely passed into the œsophagus." Now in view of these statements it is not wonderful, that persons who have not followed the progress of laryngology, should, like my friend, be rather incredulous as to the certainty of the introduction of the laryngeal tubes. But by the use of the laryngeal mirror the matter is placed beyond the question of a doubt, the whole transit of the instrument from its entrance into the mouth to its passage through the constriction being watched. Vomiting through the tube is an impossibility, and it can be stated positively that the air which passes through it is not eructation from the stomach but air passing to and from the lungs.

The benefit afforded the cases that I saw treated in this manner in the Vienna Hospital, was so marked that I determined under similar circumstances to adopt the same measures, hoping for the same happy results.

On the application of my case at the dispensary, after discovering the conditions before described, I at first made local applications of Argent. Nit. (gr. xl.—℥j.) for the relief of the thickened membranes of the larynx.

I then essayed to introduce the tubes for dilatation of the stenosis, commencing with the larger sizes I first tried No. 3 and then No. 2 of my set, on different occasions, but without being able to pass them, and it was only after repeated attemps that I was able to introduce No. 1, my smallest size.

On the occasion of its first introduction it was retained but a few seconds, being forcibly expelled on account of the irritation it produced. After each introduction, however, the larynx became more tolerant, and I may mention here that it is never nearly so sensitive during chronic laryngitis as it is in the healthy condition, until after a while he was able to retain it in the larynx breathing through it for ten minutes or a quarter of an hour at a time. It is always well when possible to introduce the tubes once or twice every day, but as this was a dispensary case it was not convenient to do so. He was seen however and the tubes introduced four times a week for about five months, when, the largest of the set having been used for some weeks, he found his condition so much improved that he determined to go to work again.

This man and the introduction of the tubes I showed while he was under treatment to the class attending the Summer course of the University of Maryland, and when I undertook to prepare this paper I had hoped to show him tonight, but on making enquiries for him I found that he is now at work out of the city.

While under treatment the swelling of the ventricular bands had diminished and his voice had become audible, but when I last saw him was still very husky.

In the treatment of those cases of stenosis resulting from the formation of membranous bands which stretch across the glottis, the points of constriction should be divided either with galvano-cautery or the concealed lancet, and the opposing surfaces cauterized, or in some instances where the membranous adhesions are very extensive it may be necessary to operate externally by making an incision through the median line of the thyroid cartilage, and cutting through the web of membrane, before the use of Schrötters tubes which will then be most serviceable in the further relief of the trouble.

To conclude, I will now close this paper by stating the object of it, which has been, in the first place, to present as clearly as possible the conditions attendant upon laryngo-stenosis, secondly the importance of the use of the laryngoscope in the diagnosis of this as well as all other affections of the throat, and finally to invite the attention of the profession to the remedial measures adopted by Dr. Schrötter for the relief of stenosis of the larynx, feeling confident that they will be found serviceable in nearly every case of this serious malady.

TRANSLATIONS.

Cardiac Hypertrophy Caused by Obliteration of the Pleural Sac and Loss of Pulmonary Elasticity. By Baeumler, (*Deutsches Archiv. fur Klin. Med. No.* XIX, *Page* 471).—The elasticity of pulmonary tissue aids the circulation of the blood and this propelling force is exerted both in expiration and inspiration. If this power be diminished, it is evident that the heart's action would be increased. Hypertrophy and dilitation of the right and later of the

left ventricle would be soon discovered. If the pleural surfaces are adherent, the free movement of the lung must suffer, and the author reports three cases, in which obliteration of the pleural cavity had caused hypertrophy and dilatation of the entire heart. Dilatation can assume such a condition, that tricuspid and mitral insufficiency may become established.

Brudi relates a similar case in the *Freiburger Poliklinik*. He found that the Resina Copaivæ exerted a curative influence upon the existing dropsy.

Affection of the Sympathetic Nerve in Both Mother and Daughter. By Spamer, (*Deutsche Zeitschrift f. prakt. Med.* 1877, *No.* 19).—A lady 47 years old, who, for a long time, had perspired only on the right side of the face after exertion, while she was yet nursing her last child, came more and more under the influence of a psychological impression (nostalgia). She lost her appetite, became thin, commenced to suffer from palpitation, complained of weak vision, and there was perceptible prominence of the eye-balls. At the same time the sympathetic nerve on the left side of the neck became very sensitive to pressure. The author inclines to the belief that all these symptoms may be attributed to an affection of the sympathetic. His opinion was strengthened by the existence of nervous diseases in this lady's relatives, and also of a similar nervous disturbance in her only daughter. The ability to blush and perspire was limited to the right side of the face, and the left side only felt warm.

The galvanic current applied to the sympathetic improved the mother's condition materially.

On the diuretic effect of the blatta orientalis in nephritis scarlatinosa. By Unterberger, (*Petersburg Med. Wochenschr.* 1877 No. 34).—The Blatta Orientalis, recommended by Bogomolow was tried by the author. He exhibited it to children three times a day, and found that the œdematous symptoms disappeared, the body weight decreased, the amount of urine augmented, the quantity of albumen became less, and that the texture of the kidneys was not destroyed.

Forced Dilatation of the Sphincter ani with especial Reference to the Treatment of Hæmorrhoids. By F. Monod, (*These inaugur, Paris*, 1877.)—The work of this author terminates with nine observations, and he gives the following conclusions :

1st. The etiology has a mechanical explanation and consists in compression at some point in the portal circulation.

2nd. In the great majority of cases this compression is limited to the branches of the superior hæmorrhoidal veins.

3rd. Hæmorrhoids once formed cause contractions more or less violent or painful and generally permanent.

4th. The forced dilitation of this contraction, which aids the development of internal piles, and also of strangulation and haemorrhage, is the most rational mode of treatment.

5th. This operation is the most simple and least offensive of any thus far proposed; and hardly merits the name of operation at all.

6th. It is indicated in rectal hæmorrhage, and in pronounced anæmia.

7th. Forced distension does not exert any perceptibly curative influence on the external piles, but nevertheless they are in sympathy and are benefitted indirectly.

8th. Thirty successful cases, in which the patients have been radically cured or notably benefitted, would seem to recommend this operation.

9th. Forced dilitation is indicated in other rectal troubles where there is pain and stricture.

Remarks on the Naso-Pharyngeal Douche. By Schalle, (*Berlin Klin. Wochenschr. No.* 31 *Page* 450, 1877).—The nasal douche requires the following precautions to prevent possible accidents:

1st. The injected fluid should never consist of pure water alone, which swells the nasal epithelium. One half per cent. of salt or of some other medication should be added.

2nd. The liquid should be at least luke-warm.

3rd. The liquid should be of pure quality, and the instruments used should be clean and in good condition.

4th. The degree of permeability of the anterior and posterior nasal openings should be first ascertained.

5th. The injection should be commenced in the nasal canal the least pervious.

6th. The elevation from which the liquid falls should not be higher than the patient can reach.

7th. The patient should breathe freely and naturally before the operation; for otherwise a sudden inspiration might exaggerate the opening of the Eustachian tube.

8th. The head should be held horizontally, when the jet enters the nostril, to prevent the liquid from reaching the frontal sinus.

9th. The douche should be repeated only at intervals, and its use at a sitting should not be prolonged.

10th. At the beginning the fluid should be injected slowly.

11th. The operation finished the patient should blow the nose and swallow with the mouth closed.

12th. On the appearance of the least symptom of disturbance the organs of hearing should be examined at once in order to prevent the development of otitis.

J. D. FISKE, M. D.

REPORTS OF SOCIETIES.

MEETING OF THE ACADEMY OF MEDICINE, OF BALTIMORE.

(Reported for the Maryland Medical Journal.)

The Academy of Medicine convened on the night of the 4th of December, with the President, Dr. McSherry, in the chair.

The president, Dr. McSherry, read a correspondence between Dr. O'Gorman, of Newark, N. J., and himself in regard to the illness and death of the late Archbishop Bayley. This eminent prelate had been in failing health for several years, suffering with very variable symptoms, in which the nervous and circulatory systems were principally involved. There were occasional attacks of asthma, and indigestion, and indications of atheromatous or fatty degenerations. The Archbishop had inherited a tendency to gout, and though this disease was never obviously developed, he had all that manifestation of the inheritance in the various erratic forms of suffering so well described by Fothergill under the name of *lithiasis*.

The autopsy revealed hypertrophied heart, with fatty degeneration, hypertrophied liver with fatty degeneration, some recent pleuritic effusion, and a firmer adhesion of the capsules of the kidneys to those organs than is found in health, though neither the cortical nor medullary structure showed any appreciable lesions. The lungs were

not diseased. The post-mortem examination was necessarily limited to the viscera of the chest and abdomen.

Dr. Wm. Lee reported a case of obstinate vomiting, in a patient three and a half months pregnant. Vomiting continued incessantly through five days, and the patient became extremely prostrated. The various remedies had been tried with repeated failure. The Doctor at last resorted to the use of ingluvin, which at once arrested vomiting and he believed saved the life of his patient. Dr. McKew remarked that he had treated a case of similar character to the one reported by Dr. Lee, and that he had used the liquid from the chow-chow pickle with immediate relief. Vomiting was frequently controlled by domestic remedies when medicine often failed. There is no specific for vomiting in pregnancy.

Dr. Chas. O'Donovan reported a case of alcoholism in which the patient had sixteen convulsions during the night. The patient was speedly relieved by use of Majendie's sol. of morphia administered hypodermically.

Dr. S. C. Chew exhibited a specimen of an invaginated intestine which had passed from a child during life. The patient, a child five years of age, had suffered several days before he was seen by the attending physician Dr. Councilman. There were unmistakable symptoms of intestinal obstruction which continued through nine days; at the expiration of that time a portion of the intestine measuring fourteen inches in length was passed and symptoms of obstruction disappeared. Two copious evacuations from the bowels occurred. At the expiration of three weeks, peritonitis suddenly supervened and the patient died. A post-mortem examination revealed the following condition: At the point of obstruction cicatrization had taken place between the divided ends of the intestine, the adhesions being of recent formation a small rupture had occurred which allowed the contents of the bowel to pass into the abdomen and occasioned fatal peritonitis.

PROCEEDINGS OF THE MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

[*Reported for the Maryland Medical Journal.*]

The meeting being called to order at the usual hour on Thursday night, Nov. 29th, by the President Dr. Murray, and the usual preliminary business disposed of, the relation of cases was declared in order,

and Dr. J. F. Monmonier related his treatment of a number of cases of hydrocele. The doctor advised strongly the injection, into the sac, of *undiluted tincture of iodine*, it having been more successful in his hands in obtaining a radical cure than any other means.

Dr. Lynch thought that the occurrence of a consequent orchitis in so large a proportion of the cases treated by Dr. M., (33 per cent.) should incline us to use less heroic measures.

Dr. Friedenwald related two cases of diabetis mellitus successfully treated with acidi carbolici gttj. ter in die. Dr. Wilkins had used lactic acid, with success in the same disease.

Dr. Theobald related a unique case of lens extraction. The patient, a gentleman, was sparring with a friend—when he received a slight blow upon the eye, supposedly with the finger nail. It was regarded as such a slight matter that a physician was not consulted, and for several days the eye was unprotected from the light and air. During this time the gentleman visited Wilmington, riding upon the engine, he being a stranger, and desiring to see as much of the country as possible. Upon his return he consulted Dr. T. and he discovered that the lens had escaped in its capsule through a linear incision in the cornea, which had healed nicely. The patient left the city again in a few days, and up to the time of his departure had experienced no trouble.

Dr. E. G. Welch had lately removed three small pieces of brick from the lower eyelid of a man, who had three years before received a scalp-wound by being struck with a brick. There had been no wound of the eyelid, nor in its neighborhood.

Dr. T. R. Brown exhibited a very interesting specimen of cancer. The disease had attacked the cervix uteri and secondarily (the intermediate tissue being healthy), the ovary, periovarian cellular tissue and a portion of the internal iliac artery. The kidney was also involved.

Dr. Chisolm mentioned a case of corneal wound received by the man thrusting his head through a pane of glass; no injury of the face accompanied it.

Dr. Rohé exhibited a new Ether Inhaler which he claimed gave the most satisfactory results. It consisted of a non-elastic rubber bag lined with flannel and supplied with a soft-rubber face-piece, which fits closely to the face. Two or three ounces of Squibb's Ether are poured into the bag and the face-piece adjusted so as to exclude the air. Anæsthesia is easily and *safely* accomplished in an average time

(in Dr. Rohé's hands) of *four and a half minutes*. The excessive carbonization of the blood and the congestion of the head and face that occur with other inhalers, is not observed with this. The Doctor claimed that if ether can be used as satisfactorily as chloroform, it is our duty to give the preference to the former, it being much the more safe.

MEETING OF THE CLINICAL SOCIETY OF BALTIMORE.

A meeting of the Clinical Society was held December 7th, at 8–30 P. M., the President in the chair. After reading of minutes and finishing of preliminary business, the members were called upon to relate cases which might be of interest to the Society.

Dr. Theobald recited a case of a colored woman who had presented herself for treatment, suffering from syphilitic keratitis. She had plainly marked notched teeth, but the most striking point in the case was that the patient when 13 years old had lost all the hair on her head, having neither eye-brows nor lashes.

Dr. Atkinson related a case of syphilis in which from continual use of syrp. iodide iron and iodide of potassa, acute pain was felt in knees of the patient and was not cured until the medicine was stopped.

Dr. Chew, called the attention of the Society to a case of thoracentesis, which he had reported about a year ago.

At that time 81 ounces of a serous fluid had been removed at one tapping, much to the relief of the patient, who left the hospital soon after apparently well.

The man had returned a short time since suffering in the same way when 52 ounces of fluid were removed, and again a week later nearly the same amount. After the second operation the patient again left the hospital.

The point of interest was the relief occasioned by the first operation which had lasted a year, whereas only a week intervened between the second and third operations. The character of the fluid had changed from serous to sero-purulent.

Dr. Barton, related a case of singularly happy result, in a case of acute bronchitis, from the use of iodii bromidum. The patient for a week had suffered all the inconvenience accompanying a bad cold, including coryza with painful and distressing cough. One dose of 3 j iodii bromidum was given at night. Patient slept well and awoke next morning entirely well. All symptoms had disappeared.

Dr. Hill, related a case of effusion into the left pleura successfully treated with salicylic acid. The medicine was given with marked relief for ten days, after which three quarters of the effusion had disappeared. Jaborandi had been also given producing profuse perspiration. In answer to a question whether the jaborandi had not been the active cause of the diminished effusion Dr. Hill said he had concluded the salicylic acid had been the chief cause of relief because it had been prescribed several days before the jaborandi, and at a time when the symptoms were so distressing thoracentesis was contemplated. These distressing symptoms disappeared before the jaborandi was used.

Dr. T. R. Brown, related a case of a white woman 41 years old, while carrying something down stairs, fell five steps, striking her left side. She was rendered helpless for a few minutes, and suffered much pain in her left hip till next morning, but was then able to go to work. The next day she took a long walk, and on returning home lost her balance. Several days after, while stepping down from the side walk her leg gave way under her and she was found in this position by a policeman.

As far as could be made out from the history of the case, Dr. B. thought it an intra-capsular fracture of the neck of the femur of several days standing which had only made itself apparent the day the patient stepped off the side walk.

Dr. Christopher Johnston read a paper upon the surgical treatment of croup and diphtheria. The announcement of such a subject to be treated by Dr. Johnston, had called together a large number of members who were fully repaid by the able manner in which it was done. A short report would scarcely do justice to the paper, more especially as a future number of your *Journal* is to print it in full.

Dr. Johnston, did not advise tracheotomy as a curative measure in diphtheria, his experience being decidedly against it.

Dr. Arnold said he was glad to have the opinion of such an able surgeon as Dr. J. upon this point. A physician might feel that he had not done his duty if tracheotomy could be of use. After hearing the paper his conscience would be at rest.

Dr. Erich had seen marked relief in diphtheria from the application of argenti nitras. (℥j-℥j) to the glottis, after the administration of an emetic. Remarkable cures had resulted.

R. B. Morison, M. D.

SELECTIONS.

THE ANTISEPTIC DRESSING OF WOUNDS.

BY JOHN CHIENE, ASSISTANT-SURGEON, EDINBURGH ROYAL INFIRMARY.

[*Read before the Medico-Chirurgical Society of Edinburgh 7th, November* 1877.]

Antiseptic surgery at present labours under two disadvantages: the expense of the dressings, and the constant necessity for using a spray-producer.

These objections would be overcome by any one who believed in the necessity of preventing putrefaction. Unfortunately, the majority of the profession do not believe in this necessity; or if they believe in the necessity, do not believe that the methods recommended can prevent putrefaction. It is therefore self-evident that a decrease in the expenditure and a simplicity in the application may encourage the profession to give this method of treatment a trial; and after they have tried it and seen the results, they may then be led to believe the truth of the principle on which it is founded.

The object of this short communication is to lay before the Society certain considerations, which, if adopted, may, in the first place, lessen the expenditure; in the second place, do away with the constant necessity for the spray. These considerations have occupied my attention for some years, and as opportunity offered, in the Clinical Surgical Wards, I have by experiment tested their practical utility.

First, The Lessening of the Expenditure.—There can be no doubt whatever that a very great increase in the expenditure has lately taken place for surgical dressings. The dressing that is now almost universally used is Lister's Antiseptic Gauze. To decrease the expenditure, three methods are available: First, to cheapen the gauze dressing; second, to use a cheaper material than gauze; third, to use a more durable material than gauze. The cost price of the charged gauze in the Edinburgh Infirmary Wards is at

present 2¼d. a yard; and it is difficult to see how the cheapening process can go on much further. In order to obtain a cheaper material than gauze I have during the last two years, along with Mr. Gunn, in the laboratory of the Edinburgh Infirmary, been experimenting with different varieties of paper. Paper impregnated with carbolic acid, and with salts of carbolic acid, has been tried upon wounds in the Clinical Wards; but at the present moment I cannot say that I have yet obtained a paper dressing as efficient and cheaper than the antiseptic gauze. I hope, however, to continue these experiments during the ensuing winter, and to lay the results before the Society at some future time. Along with these experiments, I have been using systematically, since 1875, sponges wrung out of 1 to 20 carbolic lotion, and applied over the deep dressing before the application of the outer dressing; by this means I have been enabled to lessen materially the quantity of gauze used at each dressing. I have further been enabled to dress the wounds less frequently than before. The sponges improve with use. If obtained at wholesale prices from dealers in sponges, and if small sponges are used, they can be obtained at a remarkably cheap rate. The authorities of the Royal Infirmary of this city obtained for me, for 3s. 6d., 60 small sponges weighing 1 lb. The smaller the sponges, the more easily they can be applied. These sponges may be stitched together, forming a layer; or they may be laid singly on the deep dressing, and held in position by the outer dressing. Before application, the carbolic lotion must be squeezed from the sponge. The sponge is applied practically dry. The channels in it by capillarity suck up the fluid discharges; and if a catgut or horse-hair drain is used, the sponge may be looked upon as a direct continuation of the catgut or horse-hair drain; or if an indiarubber drainage tube is used, the power of the sponge may be likened to the suction power of a syringe on drawing up the piston. It is evident, then, that the use of the sponge has other advantages besides decreasing the expenditure, and I would strongly recommend their systematic use in the antiseptic treatment of wounds. It is no uncommon thing to find that the spongy layer, acting as a reservoir, is so saturated with the discharge that the external

gauze dressing is little altered; and I have frequently, in large recent wounds, squeezed from the sponge from six to ten ounces of dark-coloured serum, which must of necessity, if the sponges had not been used, either have remained in the wound, causing tension, or have passed into the gauze dressing, necessitating its removal at an earlier period. The sponges not only decrease the expense, but they lessen the risk, and save time and trouble by reducing to a minimum the dressing of the wound. They have another manifest advantage in cases in which bleeding is feared; the resiliency of the sponges enables the surgeon to apply firm pressure without injury.

Second, Is there any way in which the surgeon may dress his wounds without the constant aid of the spray producer?—Mr. Lister long ago demonstrated that the spray is not required during the dressing of a superficial wound, as an ulcer. Can we in any way so alter the external conditions of our deep wounds that they will resemble a superficial? If this can be done, then the spray will not be required as long as these conditions are kept up. During the last two months I have attempted in several cases to comply with these conditions. My success has been such that I feel justified in stating the simple method adopted. The cases were a parotid tumour, an excision of an epitheliomatous tumour of the arm, an amputation of a great toe, and excision of the elbow-joint. In these cases a permanent deep dressing was applied on the day after the operation, and fixed in position either with a bandage or with some sticky material, such as Canada balsam, or a solution of guttapercha in chloroform. From the experience I have had in these cases, I am of opinion that if the dressing is so arranged as to be perfectly porous, and if an absorbable method of drainage is used, as catgut, it will not be necessary to remove the deep dressing until the wound is superficial. As long as the deep dressing is in position, the spray will not be required. All that is necessary is to remove the outer dressing when the discharge reaches its edges; to damp with carbolic lotion and salicylic paste the deep dressing, and to apply anew an external dressing. It must be remembered that the deep dressing has lost its antiseptic qualities, while it remains as long

as it is covered by the outer dressing, perfectly aseptic. It must, therefore, be thoroughly damped with carbolic lotion whenever it is exposed to the atmosphere, in order to destroy any mischief that may have fallen upon it during the exposure, and in order to render it actively antiseptic, so that when the dry gauze dressing is applied over it, no mischief may pass from it through the deep dressing into the wound. The spray is used at the operation and at the first dressing, and afterwards only when the deep dressing is removed. I have found, as yet, a gauze bandage the most suitable method of fixing the deep dressing on the limbs. This method is therefore available in all operations on the limbs. A bandage may also be used in many wounds of the trunk. In some, however, it cannot be satisfactorily applied, and some trustworthy adherent material has yet to be found which will fix accurately the edges of the deep dressing to the skin, leaving the centre of the dressing porous, so as to allow of the free escape of the discharges. This method has another advantage; it approaches more nearly to the perfection of healing by "scabbing," and the wound is not irritated by the carbolic spray when exposed by the usual method.

I am well aware of the imperfections which have yet to be overcome, but any considerations which have for their basis the lessening of the expense and simplicity in application, will, I believe, further the advance of the antiseptic system.

Note.—In the discussion which followed the reading of this paper, Dr. Watson alluded to the importance of seeing the wound and to the important practical question—are the pulse and temperature sufficient indications that there is no tension? In my reply I forgot to take notice of this, and it may perhaps be well here to state, that if there is neither a rise in pulse nor temperature, and if there is no pain in the wound, in my opinion the drainage may be considered to be efficient and the wound free from tension. *Edinburgh Medical Journal*, Dec. 1877,

---

Tubercular Meningitis.—Dr. Reginald Southey, physician to St. Bartholomew's Hospital, records (*British Med. Journal*, Oct. 20 and 27, 1877), four cases of tubercular meningitis in adults, and in commenting upon them says: Tubercular meningitis is

apt to be misunderstood in the adult, because the symptoms have been indistinctly pronounced, or carelessly observed; but the atter is the more common error. If the entire history of the illness be truthfully elicited, it is usually too significant to admit of wrong interpretation; but towards a correct diagnosis of this, as of every other disease, careful clinical observation is requisite.

The cases narrated, and some others which I have in my possession, enable me to summarize, as follows, the more ordinary symptoms that mark the invasion of tubercular meningitis in the adult.

1. *Headache* is certainly the most invariable symptom; seldom, if ever, absent; never wanting in any case I ever watched.

2. *Vomiting*, *constipation*, and *fever* are present, attended by no characteristic rash.

3. Peculiarity of temper and conduct, occasionally confusion of ideas, and slightly transitory delirium, are also symptomatic of this disease.

4. There are general muscular pains, followed first by stiffness, and then by slight paralysis, as shown in the imperfect co-ordination of the muscular movements, in tremblings and in twitchings. The muscular pain and stiffness are often first complained of in the nape of the neck, and then in the muscles of the back.

5. *Slight epileptiform convulsions are observed, followed by paralysis of motion in the limbs or parts convulsed;* this paralysis being most usually of a transitory or temporary kind. Among the paralysis most frequently noticed and characteristic, I may single out those affecting the optic commissure and oculo-motor tracts, causing a slight internal squint, with dilated inactive pupil of one eye, with drooping of the same eyelid, and paralysis of the facial nerve upon one side. The paralysis of the limbs, although usually a hemiplegia, is seldom one that invades the body upon one side in its entirety. Further, its mode of attack is gradual; usually the arm and leg are affected upon the same side, but the facial muscles are not involved. First there may be inertness of the arm, then of the leg, then complete loss of power; but the arm and leg may be fully extended, and never moved, although pinched and stimulated. Then the right leg may re-

cover and the left arm be implicated, so that an apparent cross paralysis may exist; or the right arm and left leg, or right leg and left arm may be so affected consecutively. The limbs which have been paralyzed, although they may recover some power, are seldom afterwards well co-ordinated in their movements.

6. Hyperæsthesia of the skin generally appears coincidentally with peculiar mental phenomena; as, for instance, conduct obstinate and unaccommodating, and a temper quite altered from that which in health distinguished the individual, a maintained attitude of dogged resistance to whatever he or she is asked to do. Very little nourishment is voluntarily taken. The abdomen becomes retracted, and the aspect of the patient, with half-open eyelids, or some slight paralysis of these, become highly diagnostic.

7. *Continued drowsiness* is observed. The patient shrinks from all disturbance, and shrieks out when roused sufficiently to move or perform voluntary acts. From this drowsiness, the step to coma and death is seldom many hours distant.

The history of the case usually records an illness that has endured some two or four weeks, but one which has not attracted much attention until distracting headache with some delirium at night has supervened. Two cases I have seen were mistaken for neuralgia and hysteria, one for typhus. If, however, in these later stages, the diagnosis is usually all too certain and assured, we may well ask if, in the earlier stages, the clinical symptoms do not sometimes suffice to indicate the exact situation of the pathological lesions. Approximately, and with some likelihood, I should answer that they do; but with no positive certainty.

In those chronic, insidious, and from their peculiar mental phenomena, most problematical cases, where there is no paralysis until the final coma, it is usual to find the tubercular meningitis principally limited to the surface of the brain; slight, too, in its amount, consisting of small opaque patches of the pia mater, attended by really very little lymph effusion; and one discovers the tubercle formations only by careful microscopic examination of the walls of the blood-vessel. If the organs of vision are involved, and there exist during life squinting or any paralysis of the

muscles which move the eyes or eyelids, the base of the brain is pretty surely the seat of tubercular inflammation, and of secondary lymph or pus exudations. Again, if there exist paralysis of the limb or of one side of the face, one may expect to find matting together of the bloodvessels in the opposite Sylvian fissure, tubercles upon the bloodvessels and dropsical œdema of the choroid plexus, and softening, with capillary blood extravasations, from the size of a pin's head to that of a split pea, in the corpora striata. More especially is this rendered probable when convulsive attacks have preceded the paralysis.

More than this in diagnosis, it is true, may be achieved; thus implication and degeneration of special cranial nerves may occasionally be shrewdly foretold before death and discovered at the autopsy; and, similarly, implication of the spinal cord may be surmised, in some instances, from the symptoms.

The pathological sequence of events that follow the tubercular formations on the walls of tiny bloodvessels are twofold; blocking up of the blood-channels and arrest of the blood-supply, anæmia of some parts of the cerebral substance, œdema and tiny capillary extravasations of others; diapedesis of white cells, softening of tissues, exudation (as it is called) of lymph. Drowsiness, is, perhaps, produced by general brain anæmia; the peculiar mental phenomena may own a similar origin. The coma is most likely due to brain-pressure consequent upon dropsy into the ventricles of the brain.—*Monthly Abstract, Dec.*

Death under Ether at the London Hospital.—An old man, sixty-nine years of age, was admitted into the London Hospital on May 12, suffering with obstruction of the bowels. He appeared old, even for his age. He was in considerable pain, which was referred chiefly to the right iliac region, and there was some tenderness also in the same place, as well as over the rest of the abdomen, which was distended and tense. It appeared from the history that the symptoms dated from two days previously; he was the subject of hernia, which came down from time to time, although he wore a truss. Two days before, his hernia being down, he reduced it, the reduction causing pain. He

had been sick previous to the reduction, and the vomiting and pain prevailed afterwards. The surgeon to the case diagnosed a reduction *en masse*, both from the history and also the appearance of a depression in the integument over the external ring; and it was thought that some portion of an old sac, which was adherent to this integument, had been reduced, and was dragging upon the integument, and so giving rise to the depression or dimpling of the soft parts. With a view to get the hernia down, and to obviate the struggling which the pain of this process gave rise to, ether was administered. Clover's inhaler was used. For about thirty seconds he inspired only his expired air; he then had, for about a minute, one-quarter to a half ether. There was some struggling at the commencement, and he did not breathe in the ether well. The mouthpiece was therefore frequently removed from his face. The amount of ether was then diminished, and as his lips looked blue it was entirely stopped; his breathing improved a little, but was not quite satisfactory. His pulse gradually became weaker, and finally stopped; respiration, however, continuing for thirty seconds or more. Sylvester's method of artificial respiration and galvanism were resorted to without success. The post-mortem examination showed that a large coil of small intestine had got caught in a figure-of-eight-shaped loop of mesentery adherent by both ends to peritoneum under the above-mentioned pouch. The intestine was very much inflamed and of a deep purple colour. Left ventricle uncontracted and flaccid. Lungs: Extreme emphysema, and containing little blood. Slight bronchitis. It would seem as though the man died more of shock than of ether. The jury also held this view, and returned—"Death from natural causes."—*Medical Times and Gaz.*

The Employment of Anæsthetics in Labor.—M. Piachaud read a paper before the International Medical Congress of Geneva, in which he advanced the following conclusions:

1. The employment of anæsthetics is, as a general rule, advisable in natural labor.

2. The principal substances which have been used for this purpose up to the present time are ether, chloroform, amylene,

laudanum, morphia hypodermically, chloral by the mouth and by injection.

3. Of these chloroform seems to be preferable.

4. It should be administered according to the method of Show, that is, in small doses at the beginning of each pain, its administration being suspended during the intervals.

5. It should never be pushed to complete insensibility, but the patient should be held in a state of semi-anæsthesia, so as to produce a diminution of the suffering.

6. The general rule is never to administer chloroform except during the period of expulsion; but in certain cases of nervousness and extreme agitation it is advantageous not to wait for the complete dilatation of the os.

7. Experience has shown that anæsthetics do not arrest the contractions of the uterus or abdominal muscles, but that they weaken the natural resistance of the perineal muscles.

8. The use of anæsthetics has no unpleasant effect on the mind of mother or upon the child.

9. In lessening the suffering, anæsthetics render a great service to those women who dread the pain; they diminish the changes of the nervous crises which are caused during labor by the excess of suffering; they make the recovery more rapid.

10. They are specially useful to calm the great agitation and cerebral excitement which labor often produces in very nervous women.

11. Their employment is indicated in natural cases until the pains are suspended or retarded by the suffering caused by maladies occurring previous to or during labor, and in those cases where irregular and partial contractions occasion internal and sometimes continuous pain, without causing progress of the labor.

12. In a natural labor, chloroform should never be used without the consent of the woman and her family.

M. Courty advocates the use of chloroform. He thinks it indicated when the pains are very great and irregular, or where the patient demands it.

M. Leblond prefers to use the hydrate of chloral.—*Gazette Medicale*, Oct. 20, 1877.

Signs by which Phthisis is recognized in its Earliest Stages without the Aid of Physical Examination of the Chest. (*The Medical Record*, September 1, 1877).

1. Retraction of the skin over the cheeks.

2. Cerulean hue of the sclerotic, due to anæmia of the conjunctiva.

In bronchitis and emphysema there is conjunctiva, and also in the later stages of phthisis.

3. Atrophy of the lips, of the ears, and a thin pinched appearance of the nose. Wherever the skin closely covers cartilages, as in the ears and nose, a showing through, as it were, of the cartilaginous framework is one of the earliest signs of loss of flesh.

4. Pallor of the cheeks and face as compared with each other and with the malar surfaces.

5. Dilatation of the nostril upon the affected side. This is the case in all pulmonary affections, but especially in the earliest stages of phthisis.

6. The respiration is invariably accelerated, and the disturbance affects expiration as well as inspiration. In certain nervous disturbances the respiration is accelerated, but it is the inspiration only which is at fault.

7. Sinking of the clavicle more upon the affected side than upon the opposite, and giving the appearance of having a very long neck.

8. Great hyperæmia of the pillar of the fauces, present long before the pulmonary disease manifests itself, and continuing until pus is expectorated. When purulent expectoration is established, decomposed pus irritates the throat, and then the other parts usually become hyperæmic.

9. Intense congestion of the throat, early hoarseness, and vomiting are unfavorable symptoms, and indicate enlargement of the bronchial glands. This vomiting is caused by pressure upon the pneumogastric by the enlarged glands. A large proportion of phthisis cases will tell of having had sore throat for a number of years previous to the development of any chest symptoms.

Death from the Inhalation of Ether.—We regret to have to record a case in which the administration of ether terminated fatally, and which occurred in the practice of Dr. G. M. Lowe, of Lincoln. The patient was a lady forty-eight years of age, who had discharged the duties of a governess in the family of Dr. Dowe, and had for some time past been suffering from cancer of the breast. A consultation was held, and the removal of the tumor determined upon. The administration of the ether was confided to Dr. Mitchinson, who had had large experience in its employment. All proper precautions appear to have been taken Dr. Mitchinson examined the heart, and, finding it rather feeble, directed the patient to take a little brandy and water. She was quite cheerful, though somewhat nervous. Half an ounce of ether was poured on the inhaler, which was placed over the mouth in the usual way. The valves were open, and gave free ingress and egress to the air. After a few inhalations the patient's face suddenly became turgid and the hands white. The inhaler was at once removed, and the tongue brought forward, cold water dashed over the face, and the chest rubbed with brandy, but the breathing became stertorous, the face more and more congested, the pulse failed, there was an effort at vomiting, and death took place within a few seconds.—*Lancet.*

ABSTRACTS AND EXTRACTS.

Fractures.—At the meeting of the Central Kentucky *Medica Association*, in July, Dr. Cowling read a paper on "Fractures" in which he treated the matter in the form of aphorisms, these relating to treatment.

Allusion was made to the great difference of opinion existing between surgeons and schools upon the most fundamental principles in connection with fractures, in prognosis and treatment, the multiplication of splints, etc., and the tendency to forget that the indications in the treatment of all fractures are the same. He thought that a series of aphorisms on the subject would be useful, as, if not agreed to, they would still present propositions for discussion. The aphorisms which he would offer, he said, were such as he had been led to adopt

from experience, and the following in the main covered the ground.

APHORISMS.

That in the diagnosis of fractures, while crepitus was the most satisfactory sign, it was not always necessary or desirable to elicit it. Thus the physiognomy of fractures at the lower end of the radius determined the nature of the lesion ; that this, with subjective symptoms, gave the diagnosis of fractures of the femoral neck ; that in fractures of the outer third of the clavicle, pain was the chief sign ; that in impacted fractures, except to relieve deformity, the fragments should not be unlocked, and hence crepitus could not be obtained. That the examination (as well as the dressing) of fractures is best done under an anæsthetic. That in simple fractures the prognosis is always favorable, and that improved methods of dressings have necssitated the laws for amputation in compound fractures to be recast.

That the best time for dressing a fracture is immediately after its occurrence, and temporary dresssings are only to be used when permanent ones cannot be obtained. Swelling is prevented by early dressing, and contiguous joints are always to be secured. That comfort is the sign that all goes well, and nothing is gained by frequent removal of dressings to examine the limb. That one of the commonest causes of failure or disaster in fracture practice is that only bone and muscle are considered, and nerves and blood-vessels neglected. That in compound fractures, which should be treated with oakum and the plaster dressings, no truss is necessary under ten days or two weeks. That in cases of consultation the physician should yield to the surgeon, and there should be no-compromise between different modes of treatment. Neglect is the chief plea in suits for malpractice.

That the dressings for all fractures of the forearm are the same, whatever their situation. Special splints for Collis' fracture are useless, compresses unsurgical ; the Pistol splint has no effect on the interosseous space, and interosseous pads are obsolete. That the dressings for a fractured forearm should consist of wooden splints, reaching from the elbow to the tips of the fingers, and a little wider than the arm. Either the limb or the splints may be padded, and preferably with cotton batting. It is to be secured with thread, and the arm bandaged over the splints from the tips of the fingers to the elbow. At the end of a week or ten days the splints are to be shortened, so as not to reach beyond the roots of the fingers, and the fingers exercised freely.

The deformities which might result after treatment were pointed out, and the prognosis in these cases mentioned.

That in all fractures near the vicinity of the elbow-joint (and portions of the shaft of the humerus, except that of the olecranon), rectangular splints must be used. These were best made of pasteboard, and the earlier stages of treatment should include the hand. That passive motion is to be instituted early in fracture near the elbow, but more or less stiffness of the joint must be expected.

That fractures of the upper end of the humerus are treated by the shoulder cap, the side of the body serving as an inside splint.

That temporarily, fractures of the clavicle are best dressed with a sling, and body bandage—permanently by Sayre's apparatus. That axillary pads cannot be worn with comfort, and are of doubtful utility.

That the best method to insure against deformity is to fix the scapula. That deformity is likely to remain if it show much at first. That fracture of the outer clavicle is frequently overlooked; that pain is its chief symptom.

Concerning fractures of the lower extremity, the discussion of which occupied the greater part of the paper, he gave the following as the chief aphorisms for their management.

That the question of continuous and active extension and counter-extension in this class of fractures could only seriously arise in fractures of the thigh. That in these, beyond the primary manipulation necessary for reduction, active extension can only be called for in the rarest instances.

That extension and counter-extension practiced by means of the long splint with perineal band, etc., or by the various apparatus which are constructed on the same principle, are generally inadequate for the purpose for which they are designed. That if they are so applied as to exert sufficient force on the muscles to effect the object, they soon become unbearable to the patient, and if this force is prolonged for any time, they are liable to cause injury to the soft parts. They quickly become disarranged, and require constant professional oversight. The main advantage the long splint may have is in preventing angular displacement.

That whenever active extension is required, there are but two methods worthy of consideration—one by Smith's anterior splint, or by instruments constructed on the same principle, and the other by Gurden Buck's weight and pully.

That the normal length of the limb is best restored by the early apposition of the fragments, immobilization, and the proper control of muscular activity.

That the plaster dressing is the proper dressing for all fractures of the lower extremity; that it fulfils the indications for extension and counter-extension generally far better, but always as well as that obtained from the use of any other means. That the comfort afforded the patient and surgeon is infinitely in its favor. That the results secured from its use compare favorably with those of any other method. That in compound fractures it is unrivalled. That deformities, or worse, accidents, which may have happened at times to cases in which it was employed, may be traced to its improper application, or to causes which would have operated had any other method been used.

Explicit directions were given concerning the manner of properly applying the dressings, and the relative merits of the several articles in use for imparting the requisite stiffness to the bandages were enumerated. Of these articles he expressed a decided preference for plaster of Paris.

Emphasis was laid, by frequent allusions, on the fact that the comfort of the patient under this treatment was a certain mark—that no anxiety or doubt need be felt as to the favorable progress of the case.

On the Rational Treatment of Dysentery.—In the Philadelphia *Medical Times*, October 27th, Dr. H. C. Wood prints an admirable paper on this subject, with cases, which we give, in part, as follows:

Every practitioner of medicine must be acquainted with the fact that anginas or sore throats are divisible into two classes,—those which are mere local inflammations and those which are the expression of a graver malady, *i. e.*, of a constitutional condition, or, as the fashion of the day terms it, a blood-poisoning.

It may not be equally well recognized, but it seems to me equally true, that all dysenteries may be similarly divided. One man is exposed to wet and cold and gets a sore throat, while his neighbor, under a similar influence, falls ill of dysentery. One man is thrown in contact with the diphtheritic poison and gets a constitutional sore throat, whilst another takes in the infection of a crowded, unclean camp and suffers from a constitutional dysentery.

Any practitioner called to treat a severe simple angina uses both constitutional and local measures; but it is scarcely a mis-statement to affirm that the chief reliance is always on the nitrate of silver or other

local remedies which are employed. Even if the sore throat be the local manifestation of a constitutional disorder, local applications are made by almost every physician, and by many they are used very energetically.

If we turn to inflammation of the other end of the alimentary tube, we find the treatment in vogue very different from that practised in anginas. Local measures (except the use of opium) are employed very imperfectly, or, in the vast majority of cases, not at all. The object of the present communication is to call attention to this anomaly, and to enter a plea for the energetic and wide-spread trial in colitis of local treatment.

This disuse of local applications in dysentery is largely, no doubt, the result of our former inability to make applications to any other than the extreme lower portions of the colon. By the use of forced enemata, so called, we are now, however, able to reach every part of the large intestine.

In giving such injections, it should be first remembered that the name is a misnomer; that no force should ever be used. The patient should be brought to the edge of a hard bed, placed in a position somewhat resembling that of a lithotomy, his buttocks resting upon a hard pillow in such a way as to elevate the pelvis and cause the injected fluid naturally to flow downwards and inwards. A well-oiled, smooth, some-what flexible, hard tube, with openings in the sides (an œsophageal tube will answer well), and with a closed end, must then be gently and slowly introduced from eight to twelve inches into the rectum. The free outer end of this may be connected with a Davidson's syringe, and the fluid thus be slowly pumped in. A better plan is to unite it with a flexible india-rubber tube, in the end of which a funnel is inserted. This being elevated five or six feet, the water is poured in, and by its own weight, with irresistible gentleness, forces its way into the gut. Instead of a funnel being employed, the tube may be so arranged as to empty a bucket or other reservoir of water placed five or six feet above the patient. A direct connection may be made, or the principle of the siphon taken advantage of. Finally, the so-called fountain syringe may be substituted. In any case the liquid should be about the temperature of the body, so as not to provoke peristalsis by the stimulus of heat or of cold.

Our experience with other portions of the body would teach us that different forms and stages of dysentery require variety in the character and strength of applications. This no doubt is the case; but my ex-

perience in angina led me at once to fasten upon nitrate of silver in these experimental trials, and this remedy has worked so well that with the few opportunities offered no other has been applied.

Drachm doses of the nitrate have in no case produced any constitutional symptoms, and doses of less than forty grains have not accomplished much good. Twenty-five grains to the ounce is a very common strength for use in angina, and when a drachm of the nitrate is dissolved in three pints of water for an injection, the strength of the solution is only a little over a grain to the ounce. The period of application is, however, much longer than in the case of the throat, and the mucous membrane of the gut is probably more sensitive. The injection usually comes away in from five to ten minutes, but I have often seen it retained twenty minutes. I have always provided common salt, so that a solution of a chemical antidote could be at once thrown up the rectum if symptoms of general action were developed. No occasion has ever occurred for its use, but in the present stage of our experience it would perhaps be safer to use the salt, if at the end of ten minutes there were no indications of the expulsion of the silver solution.

(Note.—He here reports cases successfully treated in the manner described.)

Chronic diarrhœa, so called, is undoubtedly in the majority of cases, really a chronic dysentery, *i. e.*, a chronic colitis. Notwithstanding all that has been written, a considerable experience in my own practice and that of others has convinced me that it is not always possible to make a positive diagnosis in this class of cases as to the seat of the affection. When the disease is an enteritis, injections must fail to reach the affected part, and consequently fail to do good. This introduces an element of uncertainty into the results of treatment, and must be expected to give rise to an occasional disappointment.

He directs special attention to the fact that of the six cases, reported in this paper, four of them were in the hospital from one to seven weeks, and had been treated with the ordinary remedies for chronic dysentery before the nitrate of silver was used; and that there was no change of diet at the time of injection, and that no medicine, save a little opium, was given by the mouth, yet four injections, at most, suffered for the worst case. He found that small doses failed almost entirely, yet yielded readily to injections of forty grains of the salt.

Dr. Suesserott, of Chambersburg, Pa., writing to Dr. Wood, in reference to the above paper, says he has been in the habit of using

"a cathartic that will act on the entire length of the alimentary canal, one that stimulates the liver, so as to secure the effect of the newly-secreted bile on the inflamed mucous membrane, and also by its action on the lower portions of the tract remove any matters that might be morbific agents. This to be followed by an often-repeated appropriate dose of laudanum. For an adult he prescribed hydrarg. chlor. mite, gr. viij, pulv. aloes, gr. x, pulv. rhei, gr. xii, to be taken at one dose, and, after *two* free evacuations, tinct. opii gtt. x to be given *every hour* until all disposition to go to stool shall cease."

He says he has used this remedy for years, modifying it according to the age and circumstances, with gratifying results.

Another prescription he uses is, for an adult, one-quarter grain muriate morphia combined with four or five grains of common table salt, to be repeated every three hours until dysenteric symptoms disappear. This mixture, modified to suit the age of patient, he says, gives uniformily good results in those cases of dysentery following the diarrhœa of infants.

Method of Arresting Hemorrhage after Excision of the Tonsils.—In removing the tonsils with the guillotine, it is important to remember that the organs are situated obliquely, like the pillars of the soft palate; more pressure should be made upon the lower than on the upper border of the instrument, and the tonsil will then be readily seized. It is better not to attempt to remove the whole of the organ, for after the removal of a portion the rest will atrophy, and removal of the whole is liable to be followed by dangerous and very obstinate hemorrhage. The hemorrhage may be due to the existence of inflammation at the time of operating, which inflammation also has a tendency to make the substance of the organ friable, so that it will have to be removed in small pieces; hence it is always advisable to defer the operation until the inflammatory stage has passed.

The great danger of hemorrhage, however, lies in the possibility of opening into the rich venous plexous, which lies at the bottom of the tonsillar fossa, and which is very easily wounded when the tonsil is removed entire. The hemorrhage from this source is sometimes extremely profuse, and is kept up by the movements of deglutition and spitting. The bleeding is not always primary, hence it is necessary to keep the patients under observation for a time. Sometimes it recurs after it has been once arrested. All the usual methods of checking

the bleeding are unreliable, with the exception of direct compression made by the finger of the surgeon. The finger should be introduced into the mouth and applied directly to the wound, while counter-pressure is made from in front. This position must be maintained for several minutes, notwithstanding the attacks of suffocation, the efforts at vomiting, and the cough which the method excites. The hemorrhage is generally arrested at the end of two minutes. Dr. Panas, of the Hôpital Lariboisière in Paris, has on three occasions been called on to stop considerable hemorrhages from this cause, and succeeded in promptly arresting them by this procedure.—*Medical Record*, August, 1877.

Elixir Iodo in Gangrene of the Lungs.—Dr. Wm. Jones, of Newburgh, N. Y., read at the last meeting of the Hudson River Eclectic Medical Society, a paper of which we can give a synopsis:

A laboring man residing in the country was attacked with fever attended by a troublesome cough and profuse expectoration of most offensive ordor. There were also extreme debility and prostration—all the symptoms indicating gangrene of the lungs as the primary difficulty. The antecedents of the patient were those of a hard working man who for the sake of accumulating money was utterly regardless of any risk or exposure incurred, and who by a long course of persistent neglect of the most ordinary laws of Hygiene had rendered himself peculiarly liable to just such a malady.

Recognizing the fact that he had a broken-down constitution to deal with, the Doctor first tried the effect of Aconite and Gelseminum for the purpose of stimulating the nervous capillaries to a more vigorous action. A partial success rewarded his efforts—but finding that the benefit was not likely to be permanent, and depairing of final success, he determined as a last resort to try the Elixir Iodo-Bromide of Calcium Compound, frankly avowing that at the commencement he had little confidence in its efficacy, but was induced to use it simply by the numerous recommendations of members of the profession which had been brought to his notice. He began with teaspoonful doses, increasing the quantity *pro re nata*, and in a short time found to his great surprise that his patient was evidently improving. He gained strength—his bowels became regular—appetite improved—his cough was less distressing, and the expectoration, which had been in-

tolerably offensive, greatly lessened and deprived of its characteristic ordor. He took three bottles of the Elixir Iodo, and at the end of that time was restored to his normal health and vigor.

The Function of Lymph in Cicatrization.—Dr. Kœberlé (*Gazette Medicale de Strasburg, and Brit. Med Journ.*) discusses this subject. So long as the flow of blood lasts, that of lymph passes unperceived. It is, however, recognized that, when the lymphatic vessels are wounded, the lymph continues to flow in spite of the compression used to arrest the hemorrhage. This escape is only stopped after the complete occlusion of the lymphatic vessels. At the end of a certain time, this liquid, at first fluid, becomes plastic; it includes fibrine, which coagulates, as is often seen on the surface left by a blister. The lymph, easily becoming puriform, gives rise then to sanies, which, infiltrating into the tissues, may occasion erysipelas, secondary hemorrhages, and other consecutive accidents of wounds. This stagnation of the sanies reveals itself by redness and pain on the point of the cicatricial line. An opening must then be made for its escape. Observation demonstrates that on the median line of the body, where there are few lymphatics, good immediate union is frequently obtained. On the other hand, longitudinal incisions, which affect the lymphatics less, heal better than transverse ones. From these facts may be drawn indications useful for operating; it is to make the incision parallel to the direction of the lymphatics, and to avoid these as much as possible in transverse sections. For the same reasons, it is desirable to seek to spare the areolar fatty tissue which lines the skin when it is dissected, either in removing tumors or in cutting flaps in amputating. If this protective lining be not respected, the lymphatics are slashed and give rise to a flow of the lymph, which is incompatible with immediate union.

EDITORIAL.

Dr. John S. Billings, of the U. S. army, has recently completed a course of lectures on medical education, with reference to the plan to be pursued for the medical department of the Johns Hopkins university, at the Hopkins Hall in this city. The Doctor recommends that the course shall extend through three or four years, or longer if pos-

sible, with examinations at the close of the first year, at the commencement of clinical study, with a final examination at the close of the course so searching in its character as to test the real ability of the candidate's qualification for practice.

He recommends that the university provide facilities for the study of "state medicine" with reference to registration of physicians, statistics, public hygiene, sewerage, ventilation of public buildings and schools; for the study of medical jurisprudence, with special reference to expert testimony in courts of law on insanity and other subjects, and a special course for the education of medical officers of the army and navy. The course was one of great interest and value and was attended by many members of the medical profession in this city.

THE CITY HOSPITAL.—The name of the Washington University Hospital, corner of Calvert and Saratoga streets, has been changed by the Faculty of the College of Physicians and Surgeons, and will in future be known as the "City Hospital." At a recent meeting of the Faculty, a resolution was passed establishing a voluntary graded system in the College as follows:

Resolved, That students are advised to attend three courses of lectures, but are obligated to attend but two; that those who declare a purpose to attend three courses shall devote themselves during the first year to anatomy, physiology, materia-medica and chemistry; the second year to principles and practice of surgery, clinical surgery and obstetrics; and the third year to diseases of women, diseases of the eye and ear, and clinical medicine.

That examination on the above branches shall be held at the end of each course. Students who fail on any of the branches may come forward the succeeding year without loss of time. Failure on the third year's course will entitle them to re-examination.

THE NEW YEAR.—To the friends and patrons of the MARYLAND MEDICAL JOURNAL, one and all, a happy and prosperous New Year!

We can indulge this sentiment and wish with all the more fervor and sincerity inasmuch as they have contributed to the assured success of our enterprise, thus making us prosperous and, consequently, happy. That the full measure of success may be meted out to those whose kindly consideration and generous aid we have so liberally received is our fervent desire.

We shall ever strive to deserve the esteem and support of the profession, everywhere, but prefer to make no extravagant promises for the future, confidently relying on that support which a mature consideration of our efforts may seem to merit.

BRIEFS.

Three Cases of Acute Articular Rheumatism Cured by Subcutaneous Injections of Cold Water.—Since 1869, when Potain made known the results of his experiments with the subcutaneous injections of water, others have been made, and several cases of acute articular rheumatism thus cured have been published in the *Gazz. Med. Prov. Venete.* Dieulafoy has also been able to verify the prompt efficacy of this treatment. Dr. Liron also publishes (*Gaz. Med. de Paris*, August, 1877) three similar cases. The improvement was rapid in all three of them; two or three injections in the vicinity of the diseased articulations sufficed in two of these cases to cause the pain to cease and to restore motion. In the third case a greater number of injections were necessary to obtain a cure, there having been a tendency of the affection to generalize itself; this also showed that this therapeutic measure was not only able to effectually combat the pain, but also to cure the disease. Undoubtedly, a few isolated cases do not suffice to establish the therapeutic virtues of this method; but Dr. Liron thinks the successes obtained by himself and others suffice to call the attention of physicians to a procedure which, from the promptness of the results and its simplicity, may be a valuable resource.—*Gazz. Med. Ital. Venete*, 1877.

Distinctions between Croup and Diphtheria.—In the last volume of *Guy's Hospital Reports*, Dr. Hilton Fagge and Mr. Lamb write upon Diphtheria and Croup, analyzing a large number of cases, and arriving at the following cautious conclusions:—

"We find that the attempt to separate from diphtheria a membranous croup in which the fauces remain entirely free from false membrane is beset with difficulties. The cases (which must, then, be called cases of diphtheria) in which the palate and tonsils being but slightly affected, occur almost exclusively in children, and they are seldom, if ever, infectious; whereas pharyngeal diphtheria is highly

infectious. But when one has once admitted that the different forms of diphtheria present different degrees of infectiousness, and that each of them occurs with special frequency, at a particular period of life, one is debarred from insisting on the sporadic character of membranous laryngitis, and the fact that it never arises in the wards of a general hospital is proof that it is distinct. It is otherwise if we allow that the non-specific, simply inflammatory, affection may be attended with the formation of false membranes, even in the fauces. Such a view does away with the very improbable supposition that laryngeal diphtheria differs from the ordinary form of the disease, in being peculiar to children, and in possessing little or no infectiousness, and I think commends itself to us on other grounds also.

Diagnosis of Hip-diseases in Children.—In examining a child suspected to have hip-disease, be careful to place him on something firm and flat; a table covered with a blanket, a leather couch, or the floor. If you use a soft bed, he will sink into it, and you will perhaps overlook even a considerable deformity. Do not be content with anything short of a thorough examination. Do not pretend to say whether a child, whom you have examined with his trowsers on, has or has not hip-dlsease. Let him be undressed, so that you can move his limb without being hindered by his clothes. Girls past early childhood may be fully examined, if you use a shawl or a loose sheet to cover them. 1. You must look for abnormal posture of the limb or of the pelvis; 2. For stiffness of the joint; 3. Observe whether the glutei or the muscles of the thigh are wasted, or whether any, especially the adductors, are rigid; 4. Or whether there is any fossa; 5. Notice the relation of the trochanter to the side of the pelvis as compared with that of the opposite side; 6. Look to the length of the limb as compared with that of its fellow; 7. See how the patient walks, if he is able to do so; 8. If he have pain, learn its situation and its character.—*Howard Marsh, in British Medical Journal.*

Death from Ether.—A somewhat singular death, while undergoing an operation for cataract, under the influence of ether, is reported by the "Chicago Medical Journal." The surgeon had performed an iredectomy on the patient some three months previously, and had then administered ether without any alarming symptoms aving been observed. On the final occasion, after eight or ten fluid

ounces of ether had been consumed, violent coughing ensued, and was soon followed by an extremely livid appearance of the face, and then by cessation of breathing. Artificial respiration, which was immediately practised, soon brought the man round, and the operation was proceeded with and finished, occupying about ten minutes. It was then noticed that the patient was again sinking, and the same means of restoration were resorted to as before, but this time unsuccessfully, death resulting in a few minutes.—*Lancet.*

Chlorate of Potassium in Certain Forms of Diarrhœa.—It is stated (*La Andalucia Medica*, Cordova, August, 1877, p. 174) that Dr. Vonfigli employs chlorate of potassium in the diarrhœas which occur chiefly in cachectic patients attacked with nervous affections, and which consist of very frequent serous evacuations. These diarrhœas, called by the author "vaso-paralytic," are rebellious to treatment by astringents and narcotics, and may be the precursor of death. Experiments have shown that chlorate of potassium increases the contractility of the muscular coat of the vessels, and hence the indication for its use. To obtain the favorable results stated, the drug must be continued for a long time, and in severe cases increased in dose. The dose varies from two to ten grains in the twenty-four hours, according to the individual case. The author thinks that by analogy this treatment ought to be favorable in the diarrhœa of old age, in cholera, and in certain serous diarrhœas of hot countries.—J. B. R. *Phila. Med. Times.*

BOOKS AND PAMPHLETS.

Transactions of the International Medical Congress of Philadelphia, 1877. Edited, for the Congress, by John Ashhurst Jr., A. M. M. D. For sale by Cushing & Bailey 262 W. Baltimore St. Baltimore, Md.

This valuable contribution to american medical literature has at last made its appearance and will be welcomed by the profession with just pride as a correct exponent of the growth of medicine during the first century of this nation's independence. The volume numbers over

one thousand closely printed pages, containing a variety of valuable matter of great interest to the profession. It is difficult to appreciate to anything like the proper degree, the vast scientific value of this volume of Transactions. We have not space to notice in detail each article, but present the volume in full to the Profession as one of the most remarkable collections of valuable matter which has ever resulted from an essemblage of scientific men.

The long delay in the appearance of this volume has been occasioned by the Herculean task required in securing promptness from so many and so diverse contributors. To the editor, the profession owes a debt of gratitude for his labor and for the faithful manner in which it has been performed.

Outlines of Modern Organic Chemistry. By C. Gilbert Wheeler, Professor of Chemistry in the University of Chicago.

This is a small volume of two-hundred and twenty printed pages devoted entirely to the outlines of Organic Chemistry. It presents in brief the history of the important organic substances, and their chemical relations. The work is admirably adapted for the use of the student and is an excellent book of reference to the practitioner of medicine who has not the time to search through larger works for what is presented in this volume in a concise and practical form. Organic Chemistry has received too little attention at the hands of the Physician, and those who desire more familiarity with this subject can not do better than by adding this book to their library.

A Guide to Therapeutics and Materia Medica. By Robert Farquharson M. D. Edin., F. R. C. P. Lond. Enlarged and adapted to the U. S. Pharmacopœa by Frank Woodbury M. D., Philadelphia. Published by Henry C. Lea Philadelphia. For sale by Cushing & Bailey, Balto. Md.

This volume presents in moderate compass the physiological, and therapeutical action of remedies and by a convenient arrangement the corresponding effects in health and disease of each article are presented in parallel columns rendering reference easier, and impressing facts upon the mind of the reader. In its present shape it is well suited to the wants of the student and junior practitioner. As its title indicates it is intended as a "Guide" to the student of Materia Medica and

Therapeutics, and is an excellent text book for the student during his attendance upon lectures. Its small size and concise descriptions of the different articles of the Materia Medica make it a handy book for reference to the general practitioner.

THE MICROSCOPY OF THE BLOOD. By Christopher Johnston M. D., Professor of Surgery in the University of Maryland.

This pamphlet is a reprint from a paper read before the section on Biology, at the International Medical Congress which assembled in Philadelphia in 1876, and now appears in the Proceedings of the Medical Congress.

The paper has been prepared with great care and is a complete *resume* of a subject which has received so little attention at the hands of the general practitioner, and yet one of interest and importance. The author sustains his reputation, so well earned as a pains-taking and dilligent worker with the microscope. Whilst not claiming any original investigation in the study of the blood the author shows his familiarity with his subject by presenting in concise and choice language his own views and those of other distinguished microscopists on the nature of the blood-corpuscle, its phisiological and medico-legal importance. His conclusions have been reached after some years of careful and laborious study, and are conspicuous for force and clearness.

The author has given special study to the measument of the blood-corpuscle and is decided in his opinion as to the degree of ampilification requisite for conclusive study of the blood; to the study of objectives he has given special attention, and in this connection says: "If size alone be in question, it is unscientific to hope to distinguish under low powers, human red corpuscles with an average diameter of $\frac{1}{3230}$ of an inch from those of the dog with an average measurement of $\frac{1}{3576}$ of of an inch, and it is worse than unscientific to obtain large images by forcing low objectlves with short eye-pieces. We hold therefore, that with the results of mensuration of the blood-corpuscle, all the conditions attending the measurements must be given, if their authors expect to win and maintain the confidence of the world of science." It is to be observed that the author employs the word forcing as opposed to the legitimate using of particular combination of oculars and objectives.

The paper throughout is full of careful thought and will not fail to interest and instruct the attentive student and reader.

MARYLAND
MEDICAL JOURNAL.

VOL. II. BALTIMORE, FEBRUARY, 1878. NO. 4

ORIGINAL PAPERS.

SURGICAL TREATMENT OF CROUP AND DIPHTHERIA

BY CHRISTOPHER JOHNSTON, M. D., PROFESSOR OF SURGERY, UNIVERSITY OF MARYLAND.

[*Read before the Baltimore Clinical Society*]

MR. PRESIDENT:

I have been honored with an invitation to open discussion this evening upon a subject of great importance, and I appreciate the interest which my fellow members manifest in the surgical treatmenl of Croup and Diphtheria, and which has prompted them to call for an expression of opinion with regard to it, And I cannot avoid the inference that this society especially desires to obtain the views of its members based upon a personal experience which are to us more valuable than the conviction of foreign surgeons, inasmuch as all of our cases have happened and do still occur to us under the same conditions of latitude and longitude, and of the same barometrical and thermometrical states, and because, in many instances, several members of our profession at home may have been witnesses of the same facts.

Before entering upon the allotted subject directly, I think it wise to give a reason for the faith that is in me as to the duality of those diseases about which a question of treatment is raised this evening, I mean Croup and Diphtheria.

The former, *croup*, when occuring in children or young persons, is an acute *tracheitis*, followed by an exudation of coaguable lymph, usually confined to the trachea but occasionally appearing

with its precedent inflamation, in the larynx or even in the fauces. Its occurrence is favored by age, season of the year, and state of the weather, but is not dependent upon any specific poison, neither does it generate any; and its effects are, or seem to be, limited to the air passages. Tracheitis belongs to childhood; laryngitis is a disease of adult life, says Dr. Barclay (Holmes iv, p. 74): hence, *if the difficulty of breathing is caused by some condition of the larynx, we almost at once assume that in *an adult* we have to do with laryngitis, in *a child* with croup, when febrile symptoms are present, and there is nothing about the throat to account for the dyspnœa.

Diphtheria, on the other hand, may be characterized as a blood-poison propagated (Ibid. p, 64) by transmission through the atmosphere in the majority of instances, either as a miasm emanating from the bodies of the sick, or in consequence of some atmospheric changes as yet unknown to us. The affection usually localizes itself in the the fauces and tonsils, occasioning a more or less considerable effusion of tenaceous lymph under the form of grayish or chamois leather-like patch or patches set upon a crimson velvety ground of hyperæmic mucous membrane, which, by diffusion of the disease may appear in the nares, extend along the lachrymal canal to the conjunctiva, may attach to the parts of generation, and seize upon any abraded surface. Its remote consequences are felt in the kidneys, causing albuminuria, in the spleen producing enlargement and softening, and in the nervous system, causing paresis or paralysis of various systems of muscles. Now, it is my belief, that, contrary to the opinion of Niemeyer, diphtheria, with its membranous exudation, may originate in the throat and travel along the mucous membrane towards and into the larynx and trachea. And, to conclude, it is highly contagious, and very often fatally infectious, as deaths in the ranks of our profession, abundantly establish.

Of course, the questions of identity and of duality find their advocates among the most advanced medical men; but there are still points of disagreement even among those who concur in the

*Barclay, in Holmes iv, page 72.

general issue. Thus Niemeyer (vol. 1, p. 15 Pract. Med.) seeks to differentiate croupal from diphtheritic exudation, asserting that in the former the "fibrinous exudation which rapidly congulates is thrown out upon the free surface of a mucous membrane, and involves the epithelium only. No loss of substance occurs in the mucous membrane itself, and no scar remains. The diphtheritic process is also characterized by the production of a fibrinous, rapidly-coägulable exudation, but differs from croup, the exudation forming, not merely upon the surface of the mucous membrane, but also within its substance."

In opposition Drs. Edward Headlam Greenhow, (Diphtheria, p. 13,) assures us that in diphtheria "this false membrane is a true exudation which has coägulated upon the mucous surface, and from which it may often be readily separated, * * * but sometimes the subjacent membrane may be superficially ulcerated, and more rarely in a sloughing condition, * * And "in proportion as the membrane increases in thickness and density does its attachment to the subjacent surface generally become firmer."

On other points, also, dualists are at variance, for Barclay (loc. cit. p. 72) declares that "croup, although occurring in particular localities at certain times with greater frequences than elsewhere, presents none of the true features of an epidemic; but is much more truly *endemic*." Niemeyer (loc. cit. p. 26) on the other hand, admits "*epidemic* croup, in which the inflammation seems to be propagated from the pharyngeal surface into the larynx." Gross (Surgery 1872, p. 382.) is in accord with Barclay when he refers to its "occasional *endemic* character," and Hamilton (F. H. H. Princip. and Pract. Surgery 1872, p. 672,) alludes, with a reservation, to a specific poison, for he says "membranous croup is also, it is believed, a sign of blood poisoning, less intense, perhaps, than exists in diphtheria, but no less pervading, and liable to cause death independently of the local obstructions."

Other matters might here detain us, such as the identity or non-identity of diphtheria and scarlet fever, in which issue I coïncide with Greenhow who heads a chapter in his little volume on diphtheria, already quoted, "Non-identity of Diphtheria and Scarlet Fever," but they lead us temptingly too far from the subject

of the evening. We have before us, however, two diseases, both characterized by the production of a membraniform exudation, the one, Croup, primarily, and the other, Diphtheria, secondarily, threatening occlusion of the air passages, or finally, if not interfered with, accomplishing it. The diseases agree in this, they may present every possible shade of intensity, but they disagree in that croup urges on to death by obstructive dyspnœa, exhaustion and apnœa, while diphtheria kills by a venom which has poisoned the arrested life-current. It has, therefore, been my conviction, that the expectancy, from any line of treatment, medical or surgical, must differ in the two cases.

The surgical treatment of Croup and Diphtheria, usually begins where medical treatment has left them, and is premised by the question "shall tracheotomy or laryngotomy be done?" And we might also inquire if the operation itself adds to the danger of the patient, even apart from those cases of croup (or diphtheria) in which "medical treatment has been insisted upon until recovery is hopeless without operation." I am clearly of opinion that tracheotomy in children is always fraught with danger, and in young children is dangerously difficult, and I am prepared to go as far as T. Holmes, (Surgical Treat. Dis. of Infancy and Childhood 1868, p. 303.) who "thinks that of all the operations which we are commonly called upon to perform on children, tracheotomy is the most dangerous, both in its immediate performance and its secondary complications."

Prof. Loomis (Dis. Resp. Organs, Heart and Kidneys, 1875.) in discussing the propriety of tracheotomy in membranous obstructive dyspnœa or suffocation, after making the statements "that the opinion of the profession is divided," and that "statistics are not to be relied upon," says "the only question is, has any one saved life by it." He continues "it should never be resorted to with a promise of even relief—this is only temporary from dyspnœa when the membrane has reached the bronchi or even when formed in the trachea." If done "it should be performed early; and success depends upon the manner of performance and subsequent management." "But with œdema glottidis," observes the same author in another place, "no time should be lost in fruit-

less medication. Laryngotomy or Tracheotomy in extreme cases, are the only means which afford ground of hope, either of which, to prove successful, must be performed early." "Here unfortunately," says Dr. T. Holmes, (Surgery 1876, p. 672.) "tracheotomy or laryngotomy seldom saves the patient's life, but in is his only chance, and the earlier it is performed the better for him."

To answer Prof. Loomis's question is not humanly possible, for desperate cases have gotten well with and without the operation, and both kinds, perhaps, in spite of a professional fiat; but this much we can claim for all surgeons but one, a French surgeon who operated forty times and lost every one of his patients, (Gross' Syst. Surgery, 1872, p. 382,) that some recoveries have relieved the monotomy of fatal issues. The subjoined list of all my recorded operations for opening the larynx and trachea will show how far I may allow myself to answer affirmatively the question "Has any one saved life by Tracheotomy?"

I have placed on record the following:

TRACHEOTOMY FOR CROUP—FIFTEEN TIMES.

Recovered 3 cases. Ages: 5 years; 7 years 6 months, and 4 years Died, 12 cases. Ages: Seven from 2 to 6 years, (pneumonia in last;) one at 2 years; 6 years; 3 years; 16 months, and 2½ years.

TRACHEOTOMOY FOR FOREIGN BODIES—EIGHT TIMES.

Recoveries, 6. Ages: 4 years; 2 years 6 months; 6 years; 5 years; 15 years, and 3 years. Died, 2. Ages, 2 years 7 months, and 3 years.

TRACHEOTOMY FOR EMPHYSEMA.

From buckshot wound in larynx. 1 time. Recovered.

TRACHEOTOMY FOR SYPHILITIC STENOSIS OF LARYNX.

1 time. Recovered.

TRACHEOTOMY FOR LARYNGEAL GROWTHS.

1 time. Recovered.

TRACHEOTOMY FOR DIPHTHERIA—TWO TIMES.

Both patients died. Children about 6 years each,

LARYNGOTOMY—FIVE TIMES.

For foreign body—hook and eye joined and caught in the glottis, Age 3½ years.—*Recovered.* For warty growths in larynx 4. *All recovered*, but two eventually died, one from enteritis and one from return of epitheliomatous growth in larynx.

SUMMARY.

Tracheotomy for croup, 15 times.—3 Recoveries.
Tracheotomy for foreign bodies, 8 times.—5 recoveries.
Tracheotomy for emphysema, 1 time.—1 recovery.
Tracheotomy for syphilitic laryngeal stenosis, 1 time.—1 recovery.
Tracheotomy for laryngeal growths, 1 time.—1 recovery.
Tracheotomy for diphtheria, 2 times.—2 deaths.
Total, 28 times, 11 recoveries.
Laryngotomy, 5 times.—All successful.

An inspection of this table will show that, taking the cases of *croup* as they were brought to me, for I saw them all in consultation, out of 15 children there were three survivors, the youngest of whom was four years old; and that out of eight tracheotomies for the removal of a foreign body six cases were followed by recovery, of whom the youngest was 2½ years.

It will presently appear that these statistics, as far as they go, agree with the most favorable ones from abroad. Thus Guersant, quoted by Prof. Gross, (loc. cit.) gives 783 cases as having occurred at the Hôpital des Enfans at Paris, of which 191, or 25 per cent. were successful. Guersant operated in private 156 times, and saved 28 children, or one in 5½. Gross refers to the 141 cases analyzed by Martini, of which 60 were cured and 75 died. Now the same author cites 351 cases of tracheotomy performed by twenty-one French surgeons, 312 of which terminated fatally, affording a ratio of 8 deaths to one recovery. And Dr. Jacobi, of New York, in 1868 published the results of 213 cases of tracheotomy, performed by himself, Voss, Krakowitzer, and Van Roth, of which 50, or 23½ per cent. recovered.

Prof. Frank Hamilton notices the fact that "from 1850 to 1854 Trousseau had operated in the Hospital for sick children, Paris, 218 times, and of these only 47 were cured. A report for the

year 1856 also showed fifty-four operations during the year; and of these only fifteen recovered." Prof. H. also reproduces the cases of operation collected by Dr. Voss, and reported in the New York Medical Record for January 1860, amounting to 1,249, of which number 249 recovered. And he continues, "As will be seen by a reference to the reports of Trousseau, and to the various other reports which have been made from time to time, a large majority have died when the operation has been made upon children under two years of age, and the fatality of the operation has been found to diminish with the advance of years." (Surgery 1875, p. 672.)

After what has preceded I find it easier to reply to the question "Ought tracheotomy to be done in croup and diphtheria?" I answers decidedly in the affirmative both as to croup and diphtheria provided the age and condition of the patient do not forbid the operation, which might be refused with propriety if demanded at too late a period of these diseases But it must be borne in mind that in *croup* we may obtain a respite from death, during which the disease may yield; but that in diphtheria our only gain may be a briefly temporary relief from the agony of suffocation.

Holmes (Surgery, Its Principles and Practice, p. 674,) says, "the more the disease approaches to pure diphtheria the less is the prospect of relief from tracheotomy, though the chance of relief should not be refused, as numerous examples of recovery have been recorded even when the patient's condition has been regarded as desperate."

Barclay, (Holmes' System of Surgery, p. 76,) makes the statement that "our chief reliance where prompt relief to the breathing is demanded, and seems an unavoidable necessity, must be in the operation of tracheotomy. It is certainly more adapted to croup than to diphtheria, in so far as the attack is local instead of constitutional, is an inflammation and not a blood poisoning."

In the same connexion the venerable professor Gross (Surgery, p. 382,) expresses himself as follows: "In diphtheria, as in croup, tracheotomy is seldom a successful operation, and still it is, in my judgment, in many cases, a highly proper one. Even when it cannot save life, it should be often performed to prevent impend-

ing asphyxia, and thus afford the patient the benefit of an easy mode of death."

W. Pugin Thornton (Tracheotomy, 1876, p. 42,) is not, however, so well disposed, for he says, "in these diseases tracheotomy is far less satisfactory than in any other morbid condition in which the operation is admissible, excepting, perhaps, when it is performed for scalds of the larynx; and therefore, if there should be any chance of recovery without resorting to this measure, the chance should be given."

But Erichsen, (Surgery Science and Art, 1873, page 503,) eminently humanitarian, declares that "no patient ought to be allowed to die from simple laryngeal obstruction, whether that be spasmodic or dependent upon organic disease, without an attempt being made to open the windpipe. It is as unpermissible for a surgeon to allow a patient to die of laryngeal asphyxia without an attempt at relief by opening the windpipe, even though life appear to be extinct, as it would be to let him die of hæmorrhage without attempting to contract the bleeding vessel."

The same author says elsewhere, (loc. cit p. 502,) that "the question as to the performance of tracheotomy in the croup of children must be answered by the amount of laryngeal asphyxia, and the extent of pulmonary implication." And further on he adds "I believe, that the general experience of British surgeons is unfavorable to the operation."

If then, as it has been shown, tracheotomy ought, under certain circumstances to be done, allow me, briefly, to consider the indication for the performance of this operation. And this is simple enough, namely, the existence of obstructive laryngeal dyspnœa, caused by either croup or diphtheria, so considerable as to occasion kyanosis, and threaten asphyxia. It would be highly improper to withhold the operation because some patients have recovered spontaneously from a seemingly bad condition. If it is to be done the greatest possible advantage accrues to the patient from an early tracheotomy, and on this point, I believe, most surgeons of reputation agree, although Holmes (Surgical Treatment of Children's Diseases, p. 303,) dissents because of "the great danger of the operation and its secondary complica-

tions, and feeling sure that many cases recover under judicious treatment, which have been pronounced hopeless without operation. For which reasons he would not recommend tracheotomy while any prospect of recovery existed otherwise; but," continues our ingenuous author, "if we follow this practice we must be prepared for a large proportion of deaths in cases operated upon."

Objections to the operation are drawn from the dangers of the operation itself, in which view I am supported by the high authority of Erichsen who says: "A serious objection to the performance of tracheotomy in croup is, that it is by no means an easy operation, or one devoid of immediate danger." Holmes, in his surgical treatment of children's diseases, as already quoted regards "tracheotomy as most dangerous in its immediate performance and in its secondary complications." But Burclay, in Holmes System of Surgery p. 76, differing from Erichsen, finds that "English medical men seem now very generally to incline to tracheotomy, if not to be recommended at least to be justifiable, as it does not seem materially to increase the risk of a fatal issue."

Another objection may be urged, in some cases, which relates to the extent of involvement of the pulmonary apparatus. Thus Gross (p. 382) speaks of those as "the most favorable subjects for tracheotomy in whom the plastic deposit is mainly confined to the throat and larynx, without any serious disease of the trachea, lungs and bronchial tubes. Whenever these structures are at all extensively implicated, no treatment, whether medical or surgical, will be likely to be of any permanent avail."

So Erichson, in the same connection, makes the statement that "if extensive broncho-pulmonary inflammation already exist, it will be worse than useless, and should, on no account, be practised."

And Barclay (loc. cit.) puts it mildly when he sa s that "the chance of ultimate recovery is very much diminished if the blood has become thoroughly poisoned with unexpired carbonic acid gas."

Tender age has also an unfavorable influence upon the diseases, the operation, and its result, if we judge by the enormous death-

rate in children of less than two years, Erichsen (p. 503) expresses the opinion that "under two, or even three years of age recovery is extremely rare." But the question of age will not altogether exclude very juvenile patients, for Dr. W. Pugin Thornton cites the following "cases in which the operation had been performed successfully. One by Dr. Bell of Edinburg, at six and a half months; another case by Mr. Lawson Tait, of Birmingham, at seven months; and yet another case by Dr. Cooper Forster, between ten and eleven months old. The youngest case on record, which terminated in perfect recovery, is undoubtedly that of Dr. Scoutellen, at the Military Hospital at Strausburg. He operated upon his own daughter, an infant of six weeks old. The tube he first used was made out of a No. 6 gum-elastic catheter. Afterwards he put in one of silver, leaving the rings for tapes. This canula was definitely removed on the tenth day."

The operation of opening the air tube having been determined upon several important matters demand instant attention. In the first place the institution of anaæthesia must be made subject to the requir ments of the case present, and it must be accepted or not, according to the convictions of the operating surgeon. For my own part I must say that the employment of ether or chloroform greatly facilitates the surgical procedure, but the exhibition of either agent ought to be avoided when the croupous exudation shall have invaded the bronchi, or when bronchitis and pneumonia shall have supervened. I have used chloroform in about one third of the operations I performed upon children, both for croup and for the extraction of foreign bodies from larynx or trachea, and, excepting a single case, with very happy results. The instance I refer to was of a child aged 2 years and 7 months, brought me from the country with a bit of chestnut hull in his windpipe. I suffered my sympathy to direct my judgment, and, after a careful administration of chloroform I opened the trachea in the face of an existing severe bronchitis, and lost my patient.

Mr. Holmes, (Surg. Treat. Children's Dis. p. 319) speaks in favor of anæsthesia, saying "Tracheotomy is best done under chloroform, unless the asphyxia is very profound, when, most probably, the child is rendered insensible by the disease." And he quotes

Dr. Buchanan of Glasgow, as commending the employment of that agent in his "Tracheotomy in Croup and Diphtheria," published in Glasgow, 1866.

Mr. Erichson is very decided in his advocacy of anaæthesia. In his Surgery, volume 11, p. 502, 1873, that distinguished surgeon assures us that "if chloroform be not given, the struggle and writhings of the child will materially embarass the surgeon in his attempts at opening the windpipe."

Again on page 505 he expresses his belief that chloroform may always be given safely except in cases of extreme syncopal asphyxia, where, as sensibility no longer exists, it is unneccessary; and he is emphatic in saying that he now invariably has recourse to it.

And finally Mr. Erichsen, on p. 509, declares that "if chloroform be not administered, the struggles of the child will add materially to the danger of the operation." It will, therefore, be perceived, that the employment of anæsthesia, in suitable cases, has high professional advocacy. But M. T. Pugin Thornton (on Tracheotmy, 1876,) is adverse, and thus expresses himself. "I would here state, (p. 9.) that in the performance of tracheotomy I never employ chloroform, but simply freeze the skin by means of ether spray; and, for this reason, that it is of vital importance, as soon as the trachea is opened, that the patient should be able to cough up any blood which may have passed down into the air passages. Should an anæsthetic have been given this cannot be done, for its effects will not have passed off in time." But "should there be insufficient assistance, it would be compulsory to anæsthetize the child, unless it have passed into an asphyxiated condition." In these views I am very much disposed to coincide with Mr. Thornton.

In the next place tracheotomy in croup and diphtheria, finds greater favor with the profession than laryngotomy which, as Erichsen says, (p. 503 and p. 509,) is to be preferred in the adult, while tracheotomy is, as a general rule more applicable to children (p. 510). Mr. Holmes (p. 312,) thinks that tracheotomy is much more frequently required in children than in adults. Mr. T. Pugin Thornton lays stress upon tracheotomy; and this view

finds a supporter in Prof. Hamilton, (loc. cit., p. 673,) who "prefers this operation in the case of children, unless the neck is so exceedingly short and fat, as to render such surgical interference impracticable."

The trachea having been selected for operation, that part of it lying above the isthmus of the thyroid will be found to offer particular attraction, especially in very young children whose aspera arteria, below the isthmus is deeply situated, and, at the root of the neck has dangerous anatomical relations. Erichsen favors the upper operation on account of the facility with which it is done, so that "in practice the tube is almost invariably opened at its upper part, usually between the second and third, or third and fourth rings, although the incision may be carried through the isthmus. (p. 506.)

Holmes (Surgery, 1876, p. 674,) says, "my own opinion is in favor of operating above the thyroid isthmus;" below it we gain little "while the operation below the isthmus is, in a fat child, a very dangerous one." In his Surgical Treatment of Children's Diseases, p. 314, the same author thus expresses himself, "I would not be understood as absolutely forbidding the division of the thyroid isthmus. I could point to several successful cases of tracheotomy in which it has been divided. * * It is better to avoid it * * but if the parts are very small I think it is safer to divide the isthmus than go below it."

Finally, Bryant (Surgery, 1873 p. 146) avows that in many instances he went through the isthmus of the thyroid and never had reason to regret it. "Indeed," continues that surgeon, "I am almost tempted to believe that the dangers of its division are really theoretical, and may practically be disregarded." In point of fact I am of opinion, as the isthmus usually crosses the second and third rings of the trachea, that bridge is frequently and safely severed in upper tracheotomy.

With regard to the operation itself I propose, at this time, to be silent, almost. I would only remark that I prefer, and have always performed the operation taught me by Chassaignac, which is done by first securing the larynx by passing a tenaculum, grooved upon its convexity, under the cricoid cartilage, after

the median cutaneous incision. Then, baring the trachea, a pointed knife is made to penetrate the trachea by following the groove in the tenaculum-director; next a blunt pointed knife enlarges the tracheal opening, cutting the rings downwards; after this, Trousseau's ditator opens the slit; and the operation is completed by the introduction of a canula. Trousseau's double canula has had numerous rivals; but Durham's canula, which I now use almost exclusively, is in my estimation, the very best which has, as yet, been given to the profession.

I am afraid, Mr. President that I have already exceeded my limits; but I would ask your patience for a moment longer, to point out the danger of sucking the tracheal wounds with the mouth, which humane procedure has cost many surgeons their lives; and call attention to Richardson's bellows, figured in T. Pagin Thornton's tracheotomy, p. 32, as promising great assistance in resuscitating patients apparently asphyxiated often operation. And I would insist upon an intelligent, patient, and pains taking after-treatment carried out by such valuable aids as I have found many medical students to be, as, not only of the highest importance to the attainment of success, but as being absolutely indispensible in procuring it.

VIBURNUM PRUNIFOLIUM, AS A UTERINE SEDATIVE.

BY B. B. BROWNE, M. D., OF BALTIMORE.

[*Read before the Baltimore Clinical Society, January* 3rd, 1878.]

It was not my intention to bring this remedy before the notice of the Society until my own experience in the use of it was much larger than at present, but as it has proved so very satisfactory and efficacious in the cases in which I have used it during the past two months, probably others who have more frequent opportunities than myself may be induced to give it a trial, and report to the society, at some future meeting, the result of their experience with it.

In the following cases, the Viburnum was used with benefit:

October 28, 1877, 9.30 P. M.—Mrs. D., aged 28, last child 18 months old, which she continues to nurse, menstruated last from 24 to 28 august, was taken with pains and uterine hemorrhage about 6 o'clock in the evening. Os dilated sufficiently to allow one finger to pass, blood came freely in gushes at intervals of about three minutes. Ordereded half a teaspoonful of the Fl. Ex. Viburnum every half hour until hemorrhage was checked, after the third dose there was no more hemorrhage it having gradually diminished after the first dose, she continued one-half teaspoonful three times daily for three or four days.

Oct. 17, 1877—Mrs. R. C., In the seventh month of pregnancy, had been flooding profusely for four or five days, ordered Fl. Ex. Viburnum ℥i to be taken at once and ℥ss every half hour until checked, the hemorrhage was entirely checked after taking a few doses.

In two cases of menorrhagia in which the menses had always lasted seven or eight days they were decreased to five days and were much diminished in quantity. In these cases the Viburnum was taken in ℥ss doses three times daily.

September 14, 1877—Mrs. H. E. B. aged 30, in the seventh month of her second pregnancy, for the past two months has had almost constant headache associated with insomnia, impaired vision, and vertigo. Œdema of the face and of the upper and lower extremities, frequent nausea and vomiting, mouth and tongue very sore and excessive ptyalism—urine highly albuminous. Was treated for the albuminuria which gradually diminished and in about a month was altogether absent. She was now entirely relieved from the headache, vertigo and œdema, but the ptyalism and sore mouth and tongue were if any thing even worse than when I first saw her. None of the usual mouth-washes for this complaint seemed to give her any relief, she used chlorate of potash, borax, bismuth, slippery elm infusion, emulsion of bitter almonds with hydrocyanic acid, belladonna &c.

About the 1st of November she commenced taking ℥ss of the Fl. Ex. Viburnum every three hours, her mouth soon commenced to get better and in less than a week gave her no more trouble.

My attention was first called to this remedy by a paper which I had the pleasure of hearing read by Dr. Edward W. Jenks of Detroit, Michigan, before the American Gynecological Society in New York in Sept. 1876.

Dr. Jenks said he had used the Viburnum during the past ten years in a great number of cases of threatened abortion and that he now relies upon it as the most efficacious remedy we have for this trouble.—He recommends it especially in those cases where abortion has become habitual with a woman. He also recommends it as a valuable therapeutic agent in the treatment of the sympathetic disorders incident to pregnancy, where a nervine or sedative is demanded. He also says that he has found it extremely useful in a large class of non-puerperal diseases of women, especially in all uterine disorders characterized by loss of blood such as menorrhagia, metrorrhagia incident to the menopause, and in all forms of dysmenorrhœa attended with profuse menstruation.

The attention of the profession was first called to the uses of the Viburnum by an article written by Dr. Phares, of Newtonia, Miss., which was first published in the "*Atlanta Medical and Surgical Journal*" in 1866, and subsequently republished in the "*Detroit Review*" Dec., 1866, and in the "*Boston Medical and Surgical Journal*" October 10, 1867.

Dr. Phares attached particular value to this remedy for the prevention of abortion.

He designated it as a "nervine, antispasmodic, tonic, astringent and diuretic," and adds: "But it is particularly valuable in preventing abortion and miscarriage, whether habitual or otherwise; whether threatened from accidental cause or criminal drugging. It tones up the system, preventing or removing those harassing nervous symptoms that so often torment and wear down the pregnant woman and disqualify her for the parturient effort. It enables the system to resist the deleterious influence of drugs so often used for the purpose of procuring abortion."

He also alludes to the habit, common among negro women on many of the southern plantations, of taking a decoction of gossypium, or cotton root, for the purpose of procuring abortion,

and says: "Some farmers on whose plantations I have used the medicine, and who have seen much of its effects on negro women who had always managed to miscarry, declare their belief that no woman can possibly abort if compelled to use the Viburnum."

Of couse no intelligent physician expects, that when an abortion is fairly begun by detachment of the ovum, or when a portion of it is extruded from the uterus any remedy or treatment will prevent its ultimate expulsion; the mischief is already done; the vital connection of the fœtus with the mother is destroyed, and no measure can preserve its life.

In order to determine in what cases this drug acts as a means for preventing abortion we may very properly consider the causes of abortion under the four following heads:

1. *Those that are Accidental*:—Violent mental emotion; sudden agitation from fright; great bodily fatigue, with mental anxiety and severe pain; hysterical convulsions, blows, falls, irritation of mammary nerves, lactation and constant suckling, railway travelling, drastic purgatives, placenta prævіæ, &c.

2. *Those that are due to some deranged state of the mother's health*:—Acute thoracic and abdominal diseases, albuminuria, uræmic convulsions, measles, scarlatina, small-pox, obstinate constipation, syphilis, intermittent fever, &c.

3. *Those that can be traced to some Morbid Condition of the Uterus or its Appendages*:—Adhesions of the uterus to other pelvic organs, retroversion of gravid uterus, &c.

4. *Those that Arise from Disease of the Embryo or its Membranes*:—Small-pox, cholera, scarlet fever, hydrocephalus, knotting or compression of the funis, placentitis, fatty degeneration, hypertrophy, induration, calcification or ossification of the placenta and syphilis.

It is in the first class, those that are accidental, that Viburnum by arresting the contractions of the uterus, which serve to separate the utero-placental attachments, and by modifying the placental and utero-placental circulation, acts so favorably as a uterine sedative in preventing threatened abortions. In the second and third classes it might be a valuable adjuvant to other appro-

piate treatment, especially in cases of retroversion of the gravid uterus.

But in the fourth class where the abortion is caused by disease of the embryo or its membranes, such as small-pox, scarlet fever, hydrocephalus, knotting or compression of the funis, fatty degeneration of the placenta or syphilis, the foetus is generally dead some time previous to the threatened abortion and of course no treatment at this stage can be expected to arrest it.

REPORTS OF SOCIETIES.

BALTIMORE MEDICAL AND SURGICAL SOCIETY.

At a recent meeting Dr. Arnold related an interesting case, which he spoke of to illustrate the great difficulty of forming an accurate diagnosis in cases where promptness is necessary. A man was brought to the City Hospital in a comatose state, no previous history could be obtained. His breathing was slightly stertorous, pulse 88, temperature 99, cheeks puffing at each expiration, slight dilatation of one pupil. Soon after being put to bed he was seized with convulsions at first clonic, and and afterwards tonic,—chiefly left-sided. Attempts to arouse the patient were only partially successful. The urine upon examination showed a large percentage of albumen. After purgation with croton oil the urgent symptoms were relieved. Subsequent symptoms indicated Bright's disease. The circumstance that seemed to render the diagnosis of uræmia doubtful was the condition of the temperature and circulation.

Dr. Lynch called attention to the fact, first brought to the notice of the profession by himself a few years ago, and which had recently been demonstrated by a Vienna physician that after every profound motor disturbance albumen may be found in the urine, without a lesion of the kidneys necessarily being present.

A case of supposed precocious menstruation was related by the president, Dr. Murray. The patient was two years of age, she had had a bloody discharge from the genitals at two periods with an interval of about a month. Upon careful questioning and examination it was discovered that the child was of a hemorrhagic diathesis, and that

it had received a jarring fall just before each discharge. The bleeding was due to rupture of the pudendal vessels; a firm touch with the finger upon the mucous surface of the labia produced ecchymosis and hemorrhage. The doctor thought it was extremely probable that in other cases which had been reported as "precocious menstruation" the condition might be a similar one.

Dr. Evans related the case of a female child, 2 years of age, who was addicted to masturbation. No source of irritation could be discovered about the genital organs or rectum. The habit was removed by moderately large doses of bromide of potassium continued for some time. Another child of the same mother had been subject to the same habit; it had died of some brain trouble. This last mentioned child had not been under the observation of the doctor.

Dr. Erich exhibited to the Society an intra-uterine fibroid polypus recently removed by him.

* * * * * * * * * * *

At the 7th Annual Meeting of the Baltimore Medical and Surgical Society held on the 3rd of January, the following officers were elected for the current year:

President, Dr. Wm. J. McDowell; 1st Vice President, Dr. A. Friedenwald; 2nd Vice President, Dr. J. J. Caldwell; Recording Secretary, Dr. George H. Rohé; Corresponding Secretary, Dr. B. F. Leonard; Reporting Secretary, Dr. G. Lawson Wilkins; Treasurer, Dr. Wilmer Brinton; Executive Committee: Drs. T. B. Evans, D. W. Cathell and J. H. Hartman; Committee of Honor: Drs. A. B. Arnold, R. W. Mansfield and J. W. P. Bates; Committee on Lectures and Discussion: Drs. J. S. Lynch, G. L. Wilkins and H. T. Rennolds.

G. H. ROHÉ, M. D.

MEETING OF THE CLINICAL SOCIETY OF BALTIMORE.

There was a regular meeting of the Clinical Society, held January 4th, with the President in the chair.

Dr. B. B. Browne, read an interesting paper, (which is printed elsewhere in this JOURNAL) on Viburnum Prunifolium, (Black Haw) as a uterine sedative.

The medicine in Dr. Browne's hands had proved so successful, in many cases, he thought himself justified in calling the attention of the Society to its efficacy.

Dr. Morris, related a case of a lady who while travelling through Baltimore was compelled to stop as she was pregnant and feared her time for confinement had come. Dr. M. was consulted and advised the lady to continue her journey as he did not consider the symptons urgent. A uterine sedative like Viburnum would have been just the medicine indicated in such a case. Upon Dr. Browne's recommendation Dr. Morris intended trying its efficacy.

Dr. Tiffany exhibited specimens of united fractures of the scapula, clavicle and first and second ribs from the same person. There was no history, the fractures being discovered in the dissecting room.

A fractured scapula as a specimen is extremely rare, there being on record but seven in the museums of this country.

Dr. T. also showed an ununited intra capsular fracture of the neck of femur. Patient had been in a hospital eleven years, had suffered very little inconvenience and was employed as a servant. The lame leg was one and one-half inches shorter than the other and could not be extended. There was a good joint formed between head and neck held to-gether by strong connecting bands, the opposing surfaces being rather jagged. The natural joint between the head and pelvis was intact and normal.

Dr. T. also showed a specimen of two perfectly ossified intervertebral substances without the slightest appearance of deformity in the position of the vertebral column. Ossification of the intervertebral substance was not rare, but complete ossification without deformity was an unheard of result of caries.

There was no history, the specimen coming from the dissecting room, and the only abnormal appearance being a sinus leading into the vertebral column.

Dr. Hill showed urinary calculus, removed from the spongy portion of the urethra of a child 3 years old.

It was contrary to the advice of many authorities that an incision was made into the spongy portion of the urethra, but the necessities of the case proving urgent the risk of forming a fistulous opening was taken. After removal of calculus one of Holt's soft india rubber catheters was introduced and left several days. The wound was dressed with simple cold water dressings and healed by first intention although the child came of scrofulous parents, aud was itself weak and puny.

Dr. Theobald read an interesting paper upon "Traumatic Lesions of

the Eye," giving an account of the detection of foreign bodies in the eye and their strange way of getting there.

N. B. In my report for last month by a typographical error Sodii bromidum was printed Iodii bromidum. Will you please correct it?

R. B. Morison, M. D.

REPORT OF THE ACADEMY OF MEDICINE.

(Reported for the Maryland Medical Journal.)

The Academy of Medicine met on Tuesday night, January 15th, with the president Dr. McSherry in the chair.

Dr. J. Robt. Ward, of Baltimore county, reported the following case:

August Kaiser, 16 years of age, a bright boy and well advanced in his education, was accidentally shot with a pistol, on the afternoon of July 3, 1877. I saw him about one hour after the accident, he was speechless, and paralized on the right side, pulse feeble, the eyes indicated consciousness; there was slight oozing of blood from the wound, the ball entered the skull about one and one-half inches above the left ear; carefully probing, the entrance of the ball was readily detected.

A little brandy and water was ordered, reaction soon took place, and no stimulants were given afterwards. For three days, he never spoke; at times he was very restless and screamed loudly. Ice was applied to the head, the bromides and hypodermic injections of morphine were given when indicated. Urine was secreted in small quantities, and two or three times it was necessary to use the catheter; the bowels were not acted on for thirteen days, although cathartics and enemas were used, one night he took four drops croton oil, without any effect. He then took brewers yeast which acted freely, and was the only medicine given to act on his bowels. August first began to speak single words, then two, then three words, and then sentences. He now walks without difficulty, and the use of his right hand is slowly becoming more perfect. His memory is not so good as before the accident, no other mental deterioration observable. The eyes all the time indicated consciousness, which was proven by his telling all that occurred, whilst speechless.

Dr. Chew reported a case of acute Bright's disease, in which he

had marked results from the use of jaborandi. The patient a negro boy aged 20, a sailor by occupation, was admitted into the Baltimore Infirmary about the 1st of January with œdema of the lower extremities and genitals, and some ascites. His urine was clouded with albumen. The patient had been much exposed to wet and cold just previous to his present attacks, up to which time he had always been healthy. He was placed upon thirty minim doses of the fl. ex. of jaborandi every two hours, and the remedy continued during the day for two days. Diaphoresis was immediate and profuse, the perspiration completely saturating bed clothing and matress. At the expiration of forty-eight hours the œdema had disappeared entirely and a mere trace of albumen was to be found in the urine. In cases where immediate diaphoresis is indicated Dr. Chew thought that jaborandi was one of the most reliable and prompt remedies we had. It often disagreed with the stomach, producing nausea. In such cases pilocarpin administered hypodermically should be substituted. The fl. ex. was the only reliable preparation of jaborandi, and he recommended that prepared by Sharp & Dohme, of this city.

Dr. Chisolm reported a case of cataract in an infant six months old, the result of intra uterine inflammation. It is not infrequently that we find iritis and other imflammatory troubles of the eye which have existed during intra uterine life and such troubles are not always of specific origin. In the case reported the infant was unusially large and healthy, and there were no indications of a specific origin. The patient had been operated on with a restoration of sight.

Dr. Van Bibber reported a case of an infant three months old, with a large nævus upon its nose which began to grow six weeks after birth and had in six weeks time attained to a large size. Electrolysis had been employed in the following manner: A sharp needle attached to the positive pole was inserted into the nævus and the negative pole applied to the infant's back. Hæmorrhage was profuse when the needle was with-drawn from the tumor, but upon its introduction again closed. The patient was still under treatment. The doctor promised to report the result of treatment at the next meeting of the Academy.

Dr. McKew related a case in which a large nævus occupied the entire upper eyelid of a child. In this case perchloride of iron had been injected into the nævus. The cure was perfect. Dr. Chisolm remarked that the nævus was not an uncommon trouble in eye surgery.

He employs a thread saturated in perchloride of iron, which is passed through the nævus in different directions. The thread should be larger than the needle employed, so as to close up the puncture made by the needle and thus prevent bleeding.

SELECTIONS.

ADVANCES IN SURGERY.

The Canadian Journal of Medical Science in taking "a retrospective glance over the past year's contribution to our knowledge of medical science," presents the following admirable *resume* of the progress of Surgery:

The year's history of Surgery, like that of the sister science of medicine, has been characterized by activity and progress in all its branches. In the important subject of the treatment of aneurism, all the new improvements of the times have been repeatedly tested and not found wanting. The use of the carbolized catgut ligature, although abandoned by Mounder, one of its earliest and most enthusiastic advocates, has on the whole made more friends than it has lost. It appears to be neccessary to draw the NOOSE with a moderate degree of tightness and to tie a third knot in order to prevent slipping, (Mr. Lane). At the Royal Medical and Chirurgical Society in November Mr. Barwell reported a cure of Aneurism of Aorta, Innominate, Subclavian and Carotid by a double distal ligature on the two last named arteries. Catgut was the material employed, antiseptic precautions were taken and an essentially dry diet enjoined. The same surgeon at the same time reported a case of ligature of the left carotid with catgut for aneurism of transverse aorta which was progressing favourably. G. Y. Heath records a successful ligature of 3rd part of left subclavian with antiseptic catgut for aneurism. Mr. Martin Coates records a case of bloodless ligature of femoral for traumatic aneurism by means of Esmarch's bandage, with recovery. Esmarch's bandage alone has been much employed during the year for the cure of aneurism—especially popliteal,

Of those we may mention the case of Mr. Thos. Smith, at St. Bartholomew's, that of Staff Surgeon Reid, R. N., that of Mr. Tyrrell of Dublin, application of bandage for 50 minutes, and that of Thos. Wright of Nottingham for fermoral aneurism. Dr. Alexander Patterson records a case of double popliteal aneurism cured in 21 hours by digital compression. Several other cases of the successful use of digital compression are reported during the year. In New York a new means of compression by means of a conical bag filled with shot and suspended by elastic over the artery has been introduced by Dr. Martin Burke, and several cases favourable to its use reported. Dr. Fleet Spiers' (Brooklyn,) artery constrictor has been tested in England upon the living and dead body, and found entirely satisfactory. At a meeting of the Clinical Society of London, Mr. Henry Morris spoke highly in its favour, and said "In aneurisms of the arch, innominate, carotid, subclavian, and axillary arteries, torsion is impossible, Esmarch's bandage out of the question, compression is neither convenient nor safe, even when it could be borne, carbolized catgut had been proved unreliable, and galvano puncture is fraught with dangers of its own. In such cases as the above, constriction by the "artery constrictor" seemed to possess advantages over all other methods, and promised a fair amount of success." Dr. Phillipson, of Newcastle on Tyne, reports two casees of cure of aneurism of abdominal aorta, one by iodide of potash, the other by compression.

Lithotomy having already attained to a high degree of perfection, it is of course useless to look for much improvement in the operation from year to year. Dr. Macleod, of Glasgow, has written a valuable paper advocating the use of the rectangular staff in Lithotomy introduced by Dr. Andrew Buchanan in 1848, with a slight modification, for an account of which we must refer our readers to the original paper in the London Lancet for 28th April, 1877. Moreover, as the range of employment of its rival Lithotrity is yearly increasing, the old yieldeth place to the new, and the former is gradually becoming confined to the smaller number of cases. A new means, also, introduced by Dr. Geo. C. Duncan affords foundation for the hope that we may one day see

many cases of Vesical calculus disposed of by Litholysis. His apparatus is described in the Edinburgh Medical Journal for May. It consists essentially of a fenestrated catheter containing an india rubber bag which may be protruded through the fenestra at will, and is so arranged with an elliptical spring surrounding the mouth of the bag that this can be opened and closed by means of a wire running through the catheter. The object is, after the catheter has been introduced to protrude the bag in the bladder and catch the stone in it, thus isolating the calculus from the walls of the bladder, when an appropriate solvent can be introduced to act upon it. Dr. E. F. Starr, of Nacoochee, Ga. U. S., reports a successful case of Suprapubic Lithotomy during the year. The year was probably remarkable in the annals of gastrotomy. Dr. Schoenborn (Konigsberg) narrated a case, at the Congress of German Surgeons, in which he introduced a little india rubber bag into the stomach and then inflated it before operating. The case was successful. Dr. Trendelenberg reported another. Mr. Lawson, of the Middlesex Hospital performed the operation for extra-uterine fœtation; but the patient was affected with tuberculosis and died. Lannelongue, of Bordeaux, reports a successful case in a man of 59. He agrees with Verneuil in insisting that the stomach should not be incised until after the walls of that viscus have been carefully united to the abdominal walls by numerous points of suture. It has been claimed that Verneuil's case, reported this year, is the first one of recovery after gastrotomy for strictured œsophagus; but in reality Mr. Sydney Jones' case operated on 18:5:75: was a case of recovery, although patient died forty days after from pneumonia or some lung affection; operation first performed by Sedillot in 1849. Mr. Callender reports an unsuccessful gastrotomy for malignant disease of œsophagus. With reference to splenotomy, Billroth thinks the operation simpler than ovariotomy. He this year records a case which would probably have been successful had not a ligature on one of the six vessels he had to tie given way during an attempt at defecation. He prefers hempen ligatures to silk or catgut. Another case upon whlch he performed the operation this year did not recover from the loss of blood,

the spleen weighed fourteen pounds. H. L. Browne, of the West Bromwich District Hospital reports a case of splenotomy in a man aged twenty, four large arteries were tied, the patient rallied well, but died suddenly five hours afterwards. Spencer Wells also removed the spleen in mistake while operating for ovariotomy. Pean appears to be so far the only fortunate man in this operation.

Colotomy has been several times practised during the year with fair success, and the operation has come to be regarded as thoroughly established, and in fact necessary in every case of permanent occlusions or obstruction of the large intestine from any cause, but especially carcinoma. At a Meeting of the Medical Society, Mr. Rickman J. Godlee directed attention to a fact not generally known, and which it is important to bear in mind in connection with this operation, *viz.*: That gas may exist in the peritoneal cavity without perforation of the bowel, probably from osmosis. He adduced three instances. Osteotomy is growing in favour, and successful cases are reported from all sides. Whether subcutaneous section of the neck of the thigh bone, &c., can be best performed by Adam's saw or by Maunder and Volkmann's chisels is still a mooted question, and each side has numerous advocates. Results with either appear to be equally favourable. Mr. John Chiene secured an excellent result in knock-knee by turning up a flap of periosteum on internal condyle and cutting out with chisel a wedge-shaped piece of bone, then forcibly straightening the leg. It appears that all, or nearly all rachitic deformities of the limbs are now amenable to the surgeons skill. Subperiosteal exsections, too, are becoming common. In March, Mr. Annandale showed to one of the Societies in Edinburg, a case in which he performed exsection of the knee, and the movements of the joints were subsequently regained. The same surgeon also reports a case in which he successfully employed Esmarch's operation for the relief of permanent closure of the jaws after several other operations had failed. The operation consisted in the removal of three-fourths of an inch of the lower jaw immediately in front of the cicatrix, and the insertion, as suggested by Rizzoli, of a piece of

guttapercha between the ends of the divided bone to prevent reunion and secure the formation of a joint. It has now been successfully performed by Esmarch, Wilms, of Berlin ; Dittl, of Vienna, and Wagner of Konigsberg, and amongst British surgeons by Messrs. Mitchell Henry, Christopher Heath, Bernard and Annandale. What is regarded as an improvement in the operation of tracheotomy by certain French surgeons is the use of the galvano-cautery instead of cold steel ; a good many cases of its employment are reported, and it is claimed, with the effect of avoiding hæmorrhage. Mr. Wagstaffe has introduced and employed a new tracheotomy tube, composed of a single expanding outer tube capable of accommodating inner canulae of three different sizes ; it is so arranged that by a single turn of a screw in the shield, the sides will come together, thus greatly facilitating introduction. The new india-rubber tracheotomy tubes have been extensively used, but several accidents which have occurred point out a certain danger incident to their employment, that of rotting at the curve and slipping into the bronchus ; if used, they should be lubricated with glycerine which soon dissolves in the mucous and does not rot the rubber.

The unusual operation of extirpation of the larnyx has this year been successfully performed by Dr. David Foulis, of Glasgow. The patient was subsequently provided with a Gussenbauer's voice apparatus, like Billroth's case in 1873. This makes the tenth time the operation has been performed, and the fourth success. Extirpation of the kidney was more than once performed in 1877. Dr. C. Langenbuch reports a successful case where the kidney formed a painful tumour on the left side. Mr. Jessop, of the Leeds Infirmary, also removed the left kidney from a child æt. 2¼—the kidney weighed 16 oz. and looked encephaloid. Another case was recorded in France, in which the kidney was drawn into an abscess cavity by contraction, and thence removed. This is the eighteenth case and the tenth recovery on record. Excision of the rectum has been successfully performed during the year. M. Koeberle, of Strausburg, records one where all the functions were regained. Dr. Briddon, of New York, and Dr. Levis, of Philadelphia, each report a successful case. The latter

gentleman also reports an unsuccessful one, as does also Dr. D. Hayes Agnew, of the same city. Excision of the tongue has been frequently performed during the year, and the use of Paquelin's thermo-cautery appears to be of great service in such cases. The great advantages it possesses are facility of employment, cheapness, and the entire absence of pain after its use. It will probably supersede the *rouge fer* and the galvano-cautery altogether. Mr. Annandale records its use in three excisions of entire tongue, with two recoveries, two scirrhous breasts, with one recovery, and three epitheliomata of face recoveries in all. Dr. Ogilvie Will, of Aberdeen, records two successful cases, and Mr. Ashburton Heath, one of excision of entire tongue for epithelioma by the method suggested by Sedillot and Syme, and perfected by Mr. Annandale, which consists in splitting the lip, dividing the symphysis of the lower jaw with a saw, separating the soft parts, pulling forward the tongue, and removing the organ slowly with an ecraseur or Paquelin's thermo-cautery. Some of the patients recovered speech. H. A. Reeves contributed an interesting account of the *immediate* cure of piles by Paquelin's thermo-cautery. Dr. Hennig, of Leipsig, records a case of excision of entire uterus for cancer, with recovery. M. Pean records an extirpation of all that portion of the scapula below the spine, for medulloma, followed by recovery. Mr. Ernest Sheaf extirpated the right submaxillary gland for lympho sarcoma, and the patient subsequently suffered from persistent salivation.

The discussion at the late Congress of German surgeons on the subject of exsections, was on the whole, favourable to the operation. There, as well as elsewhere, it has come to be recognized that in these operations, partial are less dangerous than total resections, and that the antiseptic system renders the former feasible. Prof. Volkmann, of Halle, has performed exsection of the knee-joint twenty-one times with one death ; he describes a new mode of operating. Instead of the H or U incision, he cuts straight across the joint and bisects the patella with a saw. After the removal of the diseased structures, he unites the femur and tibia with catgut ligatures, he also joins the two portions of the patella by catgut. Surgeons have not been slow to avail them-

selves of the information afforded by recent researches in cerebral localizations as bearing upon the point of application of the trephine, and M. Lucas Championniere records a case of immediate recovery from a brachial monoplegia with aphasia, upon the application of the trephine, although he had no external signs of fracture to guide him. Dr. Proust at the *Lariboisiere* created quite a stir by opening an abscess of the brain with the knife, affording temporary relief to the symptoms. Nerve-stretching in neuralgia and also in tetanus has been a good deal practised and with favourable results. Besides cases reported by Callender and others in England, Billroth and Nussbaum in Germany, Paul Vogt records a case (ulna), Petersen another (posterior tibial). Each of these two also reports a case for relief of tetanus, and Kocher one for tetanus, (but this one died). In sciatica, Lister and John Chiene each a case. In tetanus it is always well to give it a trial on the principle, "*Remedium anceps melius quam nullum.*" Speaking of traumatic tetanus, we may as well record the treatment of S. Ezra Read, of Terre Haute, Ind. U. S., as he has a recovery to boast of. During his long experience forty nine cases had fallen under his care, and all died, he hence concluded that tetanus was an incurable disease. His fiftieth case, however, was treated with whiskey to the point of saturation and got well. He now thinks that so long as the good State of Kentucky "continues to manufacture her copper distilled whiskey" he will not again venture to "pronounce tetanus a mortal and incurable disease.

In the reduction of strangulated hernia, M. Phillips, of St. Maude, recommends the hypodermic injection of morphia instead of the inhalation of chloroform, and cites two cases: Mr. Rivington, of the London Hospital, reports a case of strangulated inguinal hernia operated upon, with formation of fecal fistula and subsequent recovery. Mr. Annandale exhibited, in April, a man who suffered from a large reducible femoral hernia, in whom he made an incision somewhat above and parallel to Poupart's ligament so as to reach the neck of the sac and ligature it. This is one of the few cases of radical cure of this form of hernia. Two cases of diaphragmatic hernia are reported. The insufflation of air in intussusception, volvulus and intestinal obstruction has

been several times employed during the year. M. Rogers records one, a case of volvulus; M. Ransford, of Liverpool, successfully employed a pair of bellows for inflation in a case of intussusception in a child. Dr. Southey records a case of ob struction which he successfully treated by the genupectoral position, a long rectum tube and two bottles of soda water. The use of massage as a surgical remedy handed down from the Greek gymnasts is being again revived. Among the Germans, Wagner is advocating its employment in contusions, sprains, extravasations of blood, and inflammation of joints. In America, Weir Mitchell and Sayre are the apostles of the system. M. Henriette reports a case of spontaneous elimination of a vesical calculus by the hypogastric region. Dr. Sinclair Coghill reports a case of exophthalmic goitre successfully treated by ergotine hypodermically. The subject of fat embolism is beginning to attract the attention its importance demands. Dr. Arthur Boettcher records a case of sudden death from this cause after a gun-shot wound; and Mr. J. D. Hamilton showed to the Edin. M. C. Soc., three specimens of fatty embolus of pulmonary artery taken from a boy, æt, 14, who died from rupture of the liver which was fatty. Similar cases are recorded by Wagner, Zenker, Czerny and Busch. Doubtless many cases af sudden death after fractures ascribed to shock, are due to this cause. Mr. Annandale records a case of penetration of brain by a knitting needle passing through the orbit. Recovery with loss of sight. M. Oulmont records a case of several spontaneous fractures occurring in a case of locomotor ataxy under Prof. Charcot, Mr. Barker (of Univ. Coll.) records a case of rare dislocation of the hip of "subspinous" or "suscotyloidienne" variety—the seventh recorded case. Staff-Surgeon Head, R.N., records a case of dorsal dislocation of the femur with *eversion* of the foot. Mr. Henry Morris showed at the Royal M. C. Soc., that all dislocations of the hip occur when the leg is in abduction, and that whether the head will be thrown forwards or backwards depends upon the degree of flexion or external rotation at the time. Antiseptics in surgery are daily growing in favour, and Dr. Soulez recommends carbolated camphor as perhaps the best. Naturally the search has been for

the simplest forms, and Marion Sims writes to the British *Med. Jour.*, saying that he and his colleagues in America have employed a dressing of simple cotton wool, which filters the air and prevents the access of germs. Now history repeats itself for not only has M. Desormeaux had a favourable experience of this antiseptic dressing in the Paris Hospitals, but Mathias Mayor of Brussels, true to his principle of "*Simplex sigillum veri*," advocated it so long ago as 1842, and his disciple Burggraeve, of Ghent, was also a zealous partizan of the "*appareil ouate.*" The great drawback to the use of Esmarch's elastic bandage in amputation has been the copious capillary hæmorrhage occurring on its removal. Dr. Riedinger has found electricity successful in arresting this. One pole is applied over the nerves supplying the vessels, and the other over the wounded part. He uses the induced current and recommends it before removal of the bandage. Dr. Sayre's visit to London and his demonstrations of the use of his plaster of Paris jacket in spinal curvatures has revolutionized the treatment of these diseases in England. Dr. J. N. Hyde, of Chicago, has described (*Amer. Jour. of Med. Science*, July) an ingenious adaptation of this jacket to splints, in the treatment of hip-joint disease. The second case of scirrhus of the prostate on record occurred this year in Liverpool under Dr. Dickinson; the only other was reported by Mr. Adams in the *Lancet* in 1853. Mr. Harrison Cripps records a successful case of treatment of ozæna by the method of Rouge and Lousanne for removal of the necrotic bones by separating the nose and lip from the bone and turning them up. It has been again suggested during the year that joint grating may be best detected by means of the atethoscope. The treatment of necrosis by injecting the sinuses with sulphuric acid has been under trial. Sawdust (of Memel pine) pads introduced by Surgeon Major Porter have been tried during the year by Mr. Callender, at Bartholomew's. He highly extols them as a dressing where there is purulent discharge. Solutions of bicarbonate of soda have been revived as an application for burns. A case of fungus hæmatodes cured by chromic acid is reported.

Dr. Speare, of Rochester, has this year recommended paper

splints, made with manilla paper and book-binders starch; but these were used 25 years ago by Prof. Smith, and the late Mr. Hamilton, of Dublin. Mr. Timothy Holmes placed on record a case of direct wound of the ureter, an accident hitherto not mentioned in surgical works. C. H. Golding Bird, of Guys, has this year introduced a new treatment of scrofulous lymphatic glands by a painless electrolytic caustic, and narrates twelve cases treated by it. Mr. W. D. Napier has invented a self-retaining catheter with the point of retention in the fossa navicularis, and not the bladder as in others. Two pocket surface insulated thermometers, one by Dr. Mortimer Granville, the other by Dupre. A new rectal speculum, by Dr. T. B. Reed, of Philadelphia; and a new splint for fracture of patella, by W. E. Stevenson, M.R.C.S. Amussat's filiform whalebone conductor to bougies, catheters, &c. has come into more general use, and during the year Dr. F. N. Otis, of New York, has invented a somewhat similar instrument which he calls a prostatic guide to enable an India rubber catheter to be introduced in difficult cases. Dr. E. L. Keyes, of the same city, has also introduced something similar which he denominates a cable stylet, and which, besides its other use, will likely prove to be a better flexible probe than either Dr. Sayre's or Mr. Charles Steele's. Dr. J. A. Steurer, of New York, has invented a new form of urethral dilator, in which water is made to act as the distending force. An almost identical invention, but intended as a rectal dilator and explorer, simultaneously emanated from Dr. P. S. Wales, Medical Inspector, U. S. Navy. Dr. C. F. Taylor, of New York, has invented a new osteoclast by means of which a bone may be broken at any point of selection. Dr. Richard O. Cowling, of Louisville, Ky., proposes a new method of measuring the length of the limbs. Seeing that the iliac spines and legs are parallel he measures from the centre of the umbilicus around the sole of the foot back again to the point of beginning. Of course the difference found has to be divided by two to give the real difference. The third case of luxation of the xiphoid appendix on record is reported by M. Polaillon. A new material for splints has been introduced by Mr. Chiene, of Edinburg; it consists of layers of calico and shellac, such as used by wholesale

hatters. It is stiff when cool, and pliable when heated, and is about twice as cheap as "poroplastic" material. Gurjun balsam has been advantageously employed in gonorrhœa. At the meeting of the medical Association in Chicago, Dr. H. A. Martin, of Boston, gave a most glowing account of the results he had obtained in the treatment of ulcers of the leg by a special India rubber bandage.

ABSTRACTS AND EXTRACTS.

THE EMPLOYMENT OF THE SALICYLATE OF SODA FOR RHEUMATISM, GOUT, ETC., IN SCOTLAND, FRANCE AND GERMANY.

Dr. W. S. Caldwell, of Warren, Ills., writes a valuable letter, from Paris, to the Chicago *Medical Journal and Examiner*, under date October, 1877, on the use of salicin and the salicylates, from which we extract the following:

There is probably no disease in the whole nosology, that has had so many vaunted remedies brought forward from time to time for its treatment, as acute rheumatism; each in its turn enjoying a brief period of popularity, and sinking into obscurity after being tested and failing to meet the expectation of the profession.

Among the last of the remedies that have been brought to our notice for the treatment of this most troublesome disease, are salicin and the salicylates.

Since my arrival in Europe, I have taken every opportunity to consult the leading physicians in the different hospitals that I have visited, in order to gain from them their views in regard to the efficacy of these remedies in the treatment of the above disease.

My first observations and inquiries were made at Edinburg and Leeds. In Edinburgh I found the remedy in poor repute.

Prof. Sanderson declared to me that, after trying the salicylic acid to his entire satisfaction, he had become convinced that it was worse than useless in the treatment of acute rheumatism, on account of its tendency to derange digestion, and lower the vitality of the patient, without eradicating the disease for which it was given.

After testing alkalies with the same unsatisfactory results, he now

treats the disease entirely expectantly, shielding the parts involved from the air by carded wool, over which he applies oiled silk, administering anodynes to relieve pain when urgently demanded.

But, from what I have since learned, I am more than suspicious that his want of success arose from his not using the remedy in an efficient manner. Moreover, the preparation that he employs is not that which is preferable.

It will be seen from the title of this article, that I refer only to salicylate of soda. I do so in order to impress the reader with the idea, that this preparation of the salicylates and this one *only*, should be used in the treatment of acute rheumatism, for reasons that I shall take occasion to mention.

In Dr. Jacobhouse, physician to the Leeds Infirmary, I found one of the most enthusiastic students I ever met, and would add that he who travels through Europe for the purpose of making hospital and clinical observations, and does not, when in this city, visit the Leeds Infirmary, will have reason to regret it.

Dr. Jacobhouse, when I first made his acquaintance, had just concluded a series of observations on the treatment of rheumatism by the salicylates, and he entered at once into the spirit of my inquiries and gave me every assistance in his power.

His statistics included seventy-seven cases of acute rheumatism treated by the remedy under consideration.

In forty-five of these cases, the action of the drug was so marked that its value could not be doubted.

In these 45 cases the average duration of the disease was only three days, the longest being seven, and the shortest one day.

But in the whole 77 cases there were only five in which the remedy proved an entire failure.

Three of these proved fatal, two from the accession of typhoid symptoms, and one from the supervention of a cerebral complication.

The two classes of cases least benefited by the drug, were those of moderate severity, and those in which there existed extreme hyperpyrexia.

In the last mentioned class of cases, the cold bath was added to the other treatment with excellent results.

Cardiac complications supervened in only two out of the 77 cases after the treatment was begun.

In the management of the patients, the plan pursued was to allow them to remain in the wards well covered up in bed for from one to

three days, before any active treatment was instituted. This was done in order to observe whether the disease was one of a true rheumatic character, or only an abortive form of the complaint.

The doctor tested, in the treatment of these cases, salicin, salicylic acid and the salicylate of soda; and although each exercised a powerful influence in arresting the disease, he believes that the last mentioned preparation acted most energetically, and, as it is the most pleasant to the taste of the patient, as well as least disturbing to the stomach, he gives it the unqualified preference.

The plan pursued was to put the patient upon the salicylate of soda in thirty grain doses every four hours, until the temperature was reduced to the natural standard, and all other symptoms ameliorated.

After this result had been obtained, the remedy was given three times a day for a week or ten days, to prevent a relapse.

In looking over the records of the cases, I found the influence of the remedy upon the temperature of the patients was most marked. In 40 of them it was reduced to the natural standard within twenty-four hours, and never arose again.

If the remedy produced symptoms akin to cinchonism, the dose was reduced, but not discontinued.

In London I did not find any enthusiasm among those with whom I conversed on the subject, in favor of the salicylic treatment of rheumatism.

Even in so late a work on the Pratice of Medicine as that of Dr. Bristowe, an article on acute rheumatism, only refers to the remedy in these words: "Salicylic acid in hourly doses of from 7 to 15 grains, has recently been largely employed, especially in Germany, with reputed success."

The author proceeds to recommend the use of free diluents in the form of lemonade, keeping his patient warm in bed, as a principal resource in the treatment of this disease.

When I arrived in Paris, I found the subject of the therapeutical effects of the salicylates under discussion before the Academy of Medicine, which discussion was elicited by a series of original articles read before that august body, by Prof. Germain Sée. These papers were all published in *La France Medicale*, and as I not only translated these, but also interviewed on several occasions, Prof. Guéneau de Mussy, of the Hôtel Dieu, I proceed to give below in a greatly condensed form, some of the facts elicited.

After a learned account of the discovery of salicin in 1830, by

Leroux of Vitry, in France, the author of the paper dwells at some lengths on the different salicylates, as well as the diseases for which they have been given, and, summing up his experience in their use, says: "It is the salicylate of soda that I now almost exclusively employ."

A large number of experiments upon animals, to test the physiological effects of the remedy, are detailed at length.

These experiments demonstrate that it is a most powerful agent, and one that should be used with care.

Rabbits, in whose veins were injected from 1 to 2 grammes of the salicylate of soda, died after two or three of such injections, death being preceded by extreme dyspnœa and convulsions.

One case was reported of an old man, who died after administration of the drug in large doses, and in whose case, a suspicion at least arose, as to whether his death had not been produced by the medicine. The effects of the remedy on the temperature of animals were almost nil. In animals without fever, the remedy given in large doses, only lessened the temperature, on an average, 9-10°.

Furbringer injected pus into the blood of sixteen dogs, to produce septic fever, and then gave the salicylates to test their influence in lowering their temperature. It was slightly diminished in 9 cases out of 16.

Prof. Sée therefore concludes, that the effect of the remedy in abating the temperature of the body, is only such as is produced by its disturbing influence on the circulation and respiration.

Its action upon the kidneys is most marked, and it is probable that its efficacy in lowering the temperature in rheumatism, is due to its action in eliminating through these organs, the *materies morbi* upon which the disease depends.

Ten minutes after the medicine is given, it may be discovered in the urine by adding a very weak solution of the perchloride of iron to that fluid, giving a violet color.

It is also eliminated from the system so rapidly by the kidneys, that to keep up its effects, the doses must be frequently repeated.

So powerfully does it stimulate these organs that those who discussed the subject at the Academy were generally of opinion that it should be used with great care where any kidney lesion exists; and, as a precautionary measure, we are recommended to test the urine before beginning the use of the remedy if there be the least suspicion of kidney disease.

Prof. Sée says on this subject: "If there exists any renal lesion it is necessary to prescribe the salicylic acid with great prudence, without which, even with a small dose, accidents may supervene"

The dose seems to be a matter of extreme importance; for, while the remedy is an active one, and may poison patients if given too largely, on the other hand, when given too sparingly, it may fail to produce any curative effect upon the rheumatism.

M. Sée gave his patients from eight to twelve grammes in the twenty-four hours, with the most happy results; while M. Oulmont, who gave only four grammes in the twenty-four hours, found no benefit from the remedy in the treatment of the same disease.

"If given in sufficiently large doses to produce its physiological effects (salicysm), we have inebriety, noises in the ears, and sometimes staggering."

We now pass to M. Sée's observations in "the treatment of rheumatism and gout by the salicylates."

After giving Stricker, of Germany, the credit of having first brought to the notice of the profession the use of these remedies in acute rheumatism, and acknowledging that his residence on the other side of the Rhine has prevented his views from being sooner adopted in France, he details his experience by an analysis of the following cases:

There were in all 52 patients suffering from acute rheumatism, 44 in the hospital and eight in private practice.

Six grammes of the salicylate of soda dissolved in 200 grammes of water were given five times in the twenty-four hours.

To quote M. Sée's exact words as to the results, he says:

"Now in all these cases the duration of attacks treated by the salicylates did not exceed three days. There was not one single exception.

"The age of the patient did not change the result in the least."

"In the case of two children, the one 8 and the other 12 years of age, I prescribed the remedy in doses of from 1 to 3 grammes every hour, and the success was complete in two days.

"Rheumatism existing two, four, eight, and fifteen days was arrested at the end of two or three days.

"This is what we generally observe:

"The cessation of the pain; this generally abates in from twelve to eighteen hours, and the phenomenon was constant.

"The articular inflammation disappears in from one to three days.

"Movement again becomes free and easy by the third day.

"I have seen patients whose inferior extremities had been entirely immovable, get up at the end of two or three days."

On the necessity of continuing the treatment after the patient is apparently well, M. Sée says: "Nevertheles the treatment cannot be considered as complete, unless it be continued for ten or fifteen days at least; without which a relapse is inevitable. The reason of this is the rapidity with which the remedy is eliminated from the system.

"I sometimes suspended the treatment on purpose; and when the relapse occurred, I prescribed anew the same medicine, and the same effect followed as at first.

"Sometimes repeated this experiment two or three times on the same patient.

"I will conclude by saying that relapses never occur when we continue the treatment."

On the influence of salicylic treatment in the cardiac complications of rheumatism, M. Sée observes:

"Does the salicylic treatment exercise an influence favorable or unfavorable on the development or course of the complications and accompaniments so frequent in acute articular rheumatism?

"In those who entered the hospital in the three first days of the disease, I have not seen developed a single case of inflammation either of the pericardium or endocardium; and it may be logically inferred that, if the remedy 'strangles' the disease, we anticipate the invasion of the membranes of the heart."

He acknowledges, however, that the immunity from heart disease in the cases that he treated is not corroborated by the German physicians who used the same remedy; but he thinks the reason for the difference is owing to the vacillating manner in which the latter employed the medicine at the outset.

In those patients who, from long continuance of the complaint before the treatment was begun, or from a previous attack of the disease, had already cardiac lesion, no influence seemed to be exerted by the salicylates as far as such complications were concerned.

M. Sée closes his remarks on the results of the salicylic treatment of acute rheumatism, by contrasting them with the records of 108 cases treated by the ordinary method now in vogue.

"Of these 108 cases, 10 had a duration of from 5 to 15 days; 58, from 16 to 20 days; 40, from 36 to 55 days, and upwards, therefore, 10 out of every 108 cases, get well in from 5 to 15 days, and 98 out of every 108, may expect their recovery on an average of 36 days."

Certainly if statistics are worth anything, these results are stupendous; in fact, nothing better can be desired.

In my interviews with M. Guéneau de Mussy, though I found him a warm advocate of the salicylates in rheumatism, his results had not been as flattering as those of M. Sée.

Chronic Rheumatism.—Though the number of cases recorded by M. Sée of this type of rheumatism treated by him, are not sufficiently large, perhaps, to warrant his enthusiastic deductions, yet, in view of the unsatisfactory character of the results that we generally obtain from any hitherto known remedies for the treatment of this disease, the results will certainly gain for his assertions a careful hearing and a disposition to test their accuracy.

The remedy was prescribed in the same dose as for the acute form of the disease. M. Guéneau de Mussy gives ten grammes three times a day of the salicylate of soda.

M. Sée says:

"My expectations were realized in a most happy manner. The attack disappeared exactly as in acute articular rheumatism, at the end of three or four days.

M. Bouchard has succeeded in four old men in the same happy manner.

"A patient who had had general chronic rheumatism for eleven years, confining him to his bed for from four to six months of each year, after six days' treatment was able to leave the hospital, all his joints unaffected.

"In five private patients, I observed exactly the same phenomena; the tumefactions of the joints which had existed for several months, and in one for three years, disappeared at the end of six or eight days' treatment.

"The medicine was kept up for a month."

Of course M. Sée does not claim these brilliant results in patients whose joints have undergone extensive organic changes from the ravages of this disease; but even in these, sub-acute paroxysms, to which they are so liable, can be promptly relieved by salicylic treatment.

Gout.—In the application of this remedy for the treatment of this disease, both in its acute and chronic forms, M. Sée's observations claim entire originality.

Not only do all the painful and inflammatory symptoms disappear, but also the chalky deposits about the joints are absorbed, and

patients who have been such sufferers, that life had become a burden, walk forth after a few weeks use of the remedy, restored anew to health, and freed from one of the most painful disorders to which the human family is subjected.

Lumbago and Sciatica.—The fact elicited from the discussion of the therapeutic effects of this remedy at the Academy, were somewhat conflicting as to its efficacy in the above diseases; but the opinion prevailed that as the cause that produced them was often rheumatic in character, it should always be given an early trial in their management.

Typhoid Fever.—From the known properties of the drug in arresting septic changes when applied locally, as well as on account of its reputed value in lowering the temperature of the body, great hopes were entertained that in it we should find a valuable auxiliary to our other modes of treating this most formidable disease.

But most of those who took part in the discussions at the Academy of Medicine, were not enthusiastic as to the results that they had attained.

M. Sée took the ground that the medicine is not an antipyretic in the general acceptance of that term, and that the remedies given by the stomach, with a view to their acting antiseptically upon a portion of the intestines, so remote as that effected in this disease, could not be relied upon.

Neuralgia.—M. Sée found the drug act as a decided anodnye in most nervous diseases, and used it with success in a number of cases of the above disease.

He often substitutes it for the different preparations of opium with the happiest results.

EDITORIAL.

Drs. Rohé & Leonard of this city have invented an apparatus for the administration of ether, which we have used with great comfort and satisfaction, and can recommend it to the profession as an economical, time-saving and efficient inhaler, preferable in our opinion to any thing of the kind we have ever seen used. The apparatus consists of a rubber mouth piece, such as is used by dentists for the administration of nitrous oxide gas, attached to a silk rubber bag, lined with

flannel. In the administration of ether the mouth-piece is placed closely over the nose and mouth of the patient and all air excluded. Two or three ounces of ether having previously been poured into the bag, the patient inhales the fumes of ether and his own expired air breathing all the time in the bag. By this method nothing but ether is inhaled and the patient is rapidly anæsthetized, only some 3 or 4 minutes being required in place of 10 to 15 minutes as is generally the case with other inhalers. An objection has been raised against the apparatus, on the ground that the patient is forced to inhale his own expired carbonic acid gas, and that danger might result from poisoned air. We think this objection fanciful, still this precaution will obviate all danger: Remove the apparatus now and then and force out the foul air, the bag readily fills with pure air, and the administration may be continued with perfect safety. Drs. Rohé and Leonard offer their invention to the profession and any physician desiring the apparatus can purchase the materials at any rubber store and construct one for himself at the trifling cost of about three dollars. Try it.

A New Journal.—Number one of volume one of the revived *North Carolina Medical Journal* is upon our table. It is published at Wilmington, North Carolina, and edited by Drs. M. J. DeRossett and Thos. F. Wood, the former for awhile resident of this city, but now of New York.

We congratulate Drs. DeRossett and Wood on the handsome appearance of their publication. It is a model of typographical excellence, while its table of contents is replete with just such valuable and interesting matter as will suit the requirements of the profession.

Prof. Edward Warren, M. D., C. M., writes an interesting letter from Paris, of which city he is a resident, for this number.

May the career of this new candidate for professional favor, so auspiciously begun, be one of continued success and usefulness.

The Seventy-First Annual Commencement of the University of Maryland School of Medicine will take place at the Academy of Music on March 1st at 12 o'clock M. The address to the graduating class will be delivered by Prof Dan'l. C. Gilman, President of the Johns Hopkins University. On the afternoon of the same day the Alumni meeting and Banquet will be held at the Rennert House, to which all of the Alumni of the school are cordially invited by the Faculty. On this occasion Prof. S. C. Chew will deliver an address

on the "character and professional works" of the late Prof. Nathan R. Smith. Dr. James Carey Thomas, of this city, will deliver the address before the Alumini.

College of Physicians and Surgeons Commencement.—The Annual Commencement of the College of Physicians and Surgeons will take place at the Academy of Music on the evening of March 6th.

Major John W. Daniel, of Lynchburg, lately a prominent candidate for Governor of Virginia, will deliver the address to the graduating class. Aside from the interest all the friends of the Faculty and students must feel in such an interesting event the known popularity of Major Daniel, as an orator and scholar, will doubtless attract a large crowd to the Academy.

Dispensary for Skin Diseases.—A dispensary for the free treatment of skin diseases, has been established under the auspices of the College of Physicians and Surgeons, at the City Hospital, in this city.

Dr. Geo. H. Rohé, who has made a special study of skin diseases, has charge of the dispensary which is open once a week.

Death from Chloroform.—The *Lancet* (Dec. 8, 1877) reports a case of death during the inhalation of chloroform preparatory to undergoing an operation. which occurred in South Wales.

It is perhaps too much to say that any anæsthetic is entirely free from danger under any and every circumstance, however much care may be used in its administration.

The Virginia Medical Monthly, for January, contains the complete transactions of the Medical Society of Virginia, 1877. It also presents an engraving and biographical sketch of Dr. Lewis A. Sayre, of New York. The enterprise of the editor of the *Monthly* is highly commendable and deserves recognition.

BRIEFS.

THE following formulæ are recommended by Dr. L. P. Yandell, jr., in the *Louisville Medical News:*

LAXATIVE PILL FOR HABITUAL CONSTIPATION.

℞ Ext. bellad. - - - - - - gr. x;
Ext. nucis vom. - - - - - - gr. xx;
Ext. colocynth comp. - - - ʒviij.

Ft. mass. D. in pil. No. xl. S. One every night, or as often as needed.

EXCELLENT TONIC.

Tinct. fer. citro-mur. - - - - - - ℥j;
Syrupi. - - - - - - - - - ℥ij;
Ol. limon. - - - - - - - - q. s.

M. S. Teaspoonful after meals or oftener.

PERFECTLY TASTELESS QUININE MIXTURE.

℞ Quinæ sulph. - - - - - - ʒj;
Acidi tan. - - - - - - - - gr. xv;
Syrupi tolut. - - - - - - - ℥iij.

Misc vem. S. Shake well before using.

THE preparations of grindelia robusta have proved of decided benefit in asthma.

The following is said to be a sovereign remedy in the vomiting of pregnancy:

℞ Tinct. Nucis Vom., Liq. Bismuthi, āā. ℥ss. M.

Sig. Teaspoonful three or four times a day, a dose just after each meal.

BOOKS AND PAMPHLETS.

MODERN MEDICAL THERAPEUTICS. By Geo. H. Napheys, A. M., M. D., etc. Fifth edition, enlarged and revised. Philadelphia, D. G. Brinton, publisher.

This volume, in the language of its author, "differs from ordinary works on the Practice of Medicine, in being devoted *exclusively* to Practice; from works on Materia Medica, in treating only of Therapeutics; and from a Formulary, in that it is not a mere collection of prescriptions, but aims at a systematic analysis of all current and applied means of combatting disease."

We have examined this work carefully with the special view of determining its value to the profession and find that it meets all the requirements of the busy practitioner whose time will not admit of extended reference to and examination of many authorities. It is arranged in a convenient form for ready reference and will be found useful on all occasions.

MODERN SURGICAL THERAPEUTICS. A compendium of current formulæ, approved dressings, and specific methods for the treatment of surgical diseases and injuries. By George H. Napheys, A. M., M, D., etc. Revised and brought down to the most recent date. Philadelphia, D. G. Brinton, publisher.

This volume occupies a field hitherto unsupplied and fils a need long felt, in that it gives only the Therapeutics of Surgery in brief leaving the description of operations and appartus to those more extended efforts comprehended in the text books.

These two books, in former editions combined in one, are most valuable additions to medical and surgical literature and evince great care and research on the part of their author.

The publisher presents them in good taste, the typography and general make-up being excellent.

Price, respectively, mailed postpaid to any address.—Cloth, $4.00. Full Leather, $5.00.

OBITUARY RECORD.

Robt. M. McLane, jr., a medical student at the University of Maryland, died at the residence of the Hon. Robt. McLane, in this city, on the 27th inst. of double pneumonia. He was a young man of great popularity and fine promise, and his sudden death has cast a gloom over his classmates which will not soon pass away.

The following resolutions have been passed by his classmates :

Whereas, Almighty God in his infinite wisdom has seen fit to remove from our midst our esteemed friend and classmate, Robt. M. McLane, Jr.,

Resolved, That we, his classmates, feeling deeply the loss of one of the most promising of our number, do hereby extend to his family and relatives our utmost sympathy and condolence in this their hour of sorrow and affliction.

Resolved, That a copy of the above resolutions be inserted in the Baltimore and San Francisco daily papers, and MARYLAND MEDICAL JOURNAL, and that a copy be sent to his family.

T. BARTON BRUNE,
HERBERT HARLAN,
J. G. TURNER,
JOS. F. TEARNEY,
H. B. GANTT. } *Committee.*

JOURNALISTIC.

DR. THOS. DWIGHT retires from the editorship of the *Boston Medical and Surgical Journal*, leaving Dr. J. C. Warren editor-in-chief.

A new journal to be called the *Lancet* will soon appear in Detroit to supersede the *Detroit Medical Journal*. Drs. Cleland and Connor will be the editors.

DR. GALT retires from the *Louisville Medical News*, and is succeeded by Dr. L. P. Yandell jr.

MARYLAND
MEDICAL JOURNAL.

VOL. II. BALTIMORE, MARCH, 1878. NO. 5.

ORIGINAL PAPERS.

TINEA TRICHOPHYTINA, OR RINGWORM.

BY GEORGE H. ROHÉ, M. D. LECTURER ON DISEASES OF THE SKIN, COLLEGE OF PHYSICIANS AND SURGEONS, BALTIMORE.

Thirty-five years ago, Malmsten discovered in the contagious disease of the hairy scalp, previously known under various names, such as porrigo scutulata, herpes tonsurans, tinea tondens, ringworm and many others, a vegetable parasite, belonging to the family of fungi, and named it Trichophyton tonsurans, and for the disease in which the parasite occurred he proposed the name, Trichomyces tonsurans.

This parasite has not only been found in the hairs and epidermis from ringworm of the head, but also in ringworm occurring upon various parts of the body. It seems to be therefore in accordance with sound principles of classification, if we arrange the various forms of disease in whieh this fungus is habitually found upon an etiological basis with the generic title; *Tinea Trichophytina.*

This arrangement was first adopted, I think, by Dr. McCall Anderson,*who heads the second division of his parasitic diseases, Tinea Trichophytina, giving as varieties :

Tinea tonsurans, ringworm of the head,
" circinata, " " " body,
" sycosis, " " " beard.

*The Parasitic Diseases of the Skin 2nd Ed. London, 1868.

The same arrangement is adopted by Prof. Duhring, in his recently published, very excellent book† as well as by Tilbury Fox,‡ who adds another variety, naming it Tinea Kerion. The Germans speak generally of herpes tonsurans, of the hairy scalp, which is a pleonasm, and herpes tonsurans of the non-hairy parts of the body, which is an absurdity.

Dr. L. D. Bulkley first proposed the following nomenclature:

Tinea Trichophytina corporis, ringworm of the body,
" " capitis, " " " head,
" " barbæ, " " " beard and sycosis parasitica
Tinea Trichophytina cruris, " " " perineo-crural, region commonly known as eczema marginatum.

This last classification would doubtless be at once generally adopted, if there were no differences of opinion regarding the relation of so-called parasitic sycosis and eczema marginatum to ordinary ringworm. The history of the cases to be immediately related, as well as the results of the experimental inoculations of which I shall give an account, go to show what is now generally accepted as true, *i. e.*, that ringworm of the scalp, and ringworm of the body are dependent upon the same cause, are, in fact one disease, with different manifestations, dependent upon the anatomical differences in the tissues which are the seat of these manifestations. I would therefore, considering the etiology of parasitic the following nomenclature as warranted by our *positive* knowledge on the subject.

sycosis and eczema marginatum as still under discussion, propose

Tinea Trichophytina capitis, ringworm of the head,
" " corporis, " " " body,
" " barbæ, (sim.)" " " beard,
" " unguium or onychomycosis, ringworm of the nails.

The following are the cases above referred to:

On the 3rd of October, two boys, aged respectively 5 and 11 years, were brought to the dispensary of The College of Physi-

†A Practical Treatise on Dis. of the Skin, Phil. 1877.
‡Skin Diseases, New York, 1871

cians and Surgeons for treatment of an affection of the skin. Upon examination, the younger of the two boys (whom for convenience, I shall call Willie,) presented the following character:

On the crown of the head a little to the right of the junction of the interparietal with the fronto-parietal suture was a crustaceous patch about 3 c. m. in diameter, (about the size of a silver half-dollar.) The hairs upon this patch were broken off 2 to 4 m. m. above the skin, dry and loose. They could be easily extracted with the fingers or the epilating forceps, and this proceeding caused no pain. The patch was circular, pretty thickly covered with scales, beneath which was a thin layer of pus. The border of the patch was slightly elevated and reddened. Just around the border were a number of dry, loose hairs. Four or five other spots of less size (one-half to 2 c. m. in diameter) were observed upon various parts of the scalp, presenting similar appearances to that just described. This boy was stripped and upon his right thigh was noticed an elongated dirty-yellowish spot (4 c. m. long by 2 c. m. wide) covered with dry scales. About a decimeter posterior to this patch, was a smaller circular one similar to it in appearance. The other patient was then examined and upon his head was found a small patch (about 1 c. m. in diameter) in all respects similar to the patches observed upon the head of Willie. On the right arm near the elbow was also noticed a yellowish, dry, scaly spot, (about 2½ c. m. in diameter).

Both boys were moderately well nourished and seemed to be in good health. The elder boy attended school regularly.

The only subjective symptoms noted in both cases, was slight itching.

The history of the eruption in these cases is as follows:

The largest patch on Willie's head was first noticed by his mother about six weeks before. The spot at that time was about 1½ c. m. in diameter and covered by a crust. Some of the hairs were broken off close to the skin. The affection was ascribed to "impurity of the blood" and the boy dosed with various domestic remedies in the shape of "herb teas." Notwithstanding this treatment the patch continued to increase slowly in size and others made their appearance.

About 3 weeks previous to the time these patients came to the dispensary, the elder boy began going to school (and as a result of this, I presume, his toilet was more carefully attended to). The same comb, towel, &c., were used upon him that were used upon Willie (who, it will be recollected had the eruption on the head 3 weeks before that time). Within two weeks the spot above described as observed upon the elder boy's head was noticed by his mother, and both boys were brought to the dispensary on Oct. 3, as before stated.

From this sketch of the clinical history of the two cases the diagnosis is perfectly clear. The affection was evidently propagated by contagion, and the appearances corresponded exactly with the descriptions given in dermatological works of tinea or herpes tonsurans, and circinata, or to use the ordinary appelation —ringworm; but which, in accordance with the nomenclature mentioned, I will call tinea capitis and tinea corporis. The treatment directed consisted in washing the diseased spots with soft soap and water twice daily, and afterwards rubbing well into the diseased skin carbolised oil (1 pt. carbolic acid to 15 parts linseed oil). No medicine was given internally.

On Oct. 22, the spots upon the body had disappeared, and those upon the head were clean, hairless and somewhat red. The improvement continued and at the time of writing, about ten weeks after beginning treatment, the scaling has ceased and the hairs are growing finely.

Permanent baldness, even in very severe cases rarely results. I recall four cases of this disease in one family, treated last spring, in one of which over half of the scalp was completely bare. I saw this patient a few weeks ago and he has now a beautiful crop of hair.

In order to verify the diagnosis in these cases, I made inoculations* from both the patches on the head and on the body, upon my left arm, on Oct. 5th. No effect was noticed until Oct. 13, when slight, intermittent itching was noticed at the point inoculated

*An abstract of these experimental inoculations has been published by Dr. Edward Wigglesworth, in a paper on "*Auto-inoculation of vegetable parasites of the skin &c.*" *Archives of Dermatology*, *Vol.* 4, *No.* 1, *Jan'y*, 1878.

with the scales from the head. The spot on examination was slightly tumid. On the 16th, the spot was about 1 c. m. in diameter, and the itching moderate; the border was distinctly papular and bright red. On the 19th, hemp-seed sized vesicles were observed around the border of the patch which was extending. On the 22nd the itching was a little more severe, and the patch had increased to 2½ c. m. in diameter, vesicles intact. On Oct. 26th, the vesicles had all ruptured or dried up, leaving rather large white scales. Itching had ceased. A microscopic examination of the scales showed profuse mycelial growth, but very few spores. On this day another inoculation was made from the inoculations made with the scales from the body, no result was obtained.

The result of these inoculations with the clinical history of the cases themselves prove not only that the affection was tinea trichophytina, but also that tinea capitis and tinea corporis, are essentially the same disease, and due to the same cause, the trichophyton fungus.

But whether we can further extend the observation, and say that the disease known as parasitic sycosis, is simply tinea barbæ, and eczema marginatum, tinea cruris, is by no means so well established. Thus while Hebra, and some other dermatologists, principally of the Vienna School, for a long time denied the existence of such a disease as parasitic sycosis, arguing that if a fungus had been found in some cases of sycosis, it was merely accidentally present and not etiological, Tilbury Fox, on the other hand, following some earlier French writers, holds that all cases of sycosis are parasitic, the non-parasitic folliculitis barbæ finding no place in his system. Most of the younger dermatologists however, represented in this country especially by Professors Duhring of Philadelphia, and White of Boston, accept a true non-parasitic sycosis, and also an affection which they term parasitic sycosis, regarding the latter as merely an advanced stage of ringworm of the beard. And it is in accordance with this view that Dr. Bulkley's scheme of classification contains the sub-variety of tinea trichophytina which he terms tinea barbæ. It seems to me however, that the running together of simple ringworm of

the beard and parasitic sycosis for the sake merely of completing an etiological classification involves too much assumption and lacks a very necessary basis of "facts.'

Every physician has seen cases of ringworm of the beard, and is familiar with its appearance and clinical history. In the majority of cases it is a circular or oval scaly patch, with a red, elevated, papular or vesicular border. Can any one recognise this disease in the following description of sycosis parasitica taken from Duhring's excellent work on diseases of the skin?

"*In a short time* the skin becomes distinctly nodular and lumpy, with points of pustulation about the openings of the hair-follicles. Not only the skin but also the deeper tissues are involved, giving rise to thick, bunchy, firm, or even quite hard masses of induration. The surface is of a deep reddish color; has a passively congested appearance; and is studded with variously sized tubercles and pustules, which render the part greatly disfigured. The tubercular formations are a characteristic feature of the disease; they vary as to shape and size, but are for the most part irregularly rounded, and as large as split peas and hazle-nuts. Very commonly they coalesce, producing large, uneven, lumpy patches. The amount of suppuration varies, depending upon the irritation of the fungus and the grades of inflammation set up. In certain cases it is an early symptom, and proceeds actively, pustules of all sizes forming about the follicles; at times these break down, and are succeeded by thick crusts, similar to those of pustular eczema. Beneath these crusts will usually be found an uneven, moist or raw, red surface, with yellowish points, discharging a glairy, glutinous material, and resembling in appearance the cut surface of a fig (whence the name sycosis). In other cases but slight pustulation takes place, the process being one rather of deep, seated tubercular induration throughout its course.† "The resemblance between ordinary ringworm of the beard, tinea barbæ, and the symptoms just sketched is certainly not a very striking one.

I believe that sycosis parasitica is in most, if not in all cases true sycosis in which trichophyton is accidentally present, and

†Duhring. A Pract. Treatise on Diseases of the Skin, Phila. 1877, pg. 551.

very probably, the irritation of the fungus heightens the morbid process.‡ My reasons for excluding the trichophyton fungus from the etiology of so-called parasitic sycosis, are briefly these: Tinea barbæ has been observed hundreds of times without developing into a sycosis-like affection, even though the parasite had been present for many months. On the other hand when parasitic sycosis has been carefully observed it has usually become fully developed in three to four weeks. I remember two cases of ringworm of the beard which had lasted a long time, in the one case six months, and in the other over a year, and yet neither would have been called *sycosis* by any well informed physician.

A like discrepancy of opinion exists with regard to an affection of the skin first described by Von Barensprung under the name of *Erythrasma*, but afterwards more fully described by Hebra, and named by him Eczema Marginatum and which forms the tinea cruris of Dr. Bulkley's classification. It affects usually the skin of the perineum, scrotum, upper portion of the thighs, and lower portion of the abdomen. It spreads centrifugally, having a red, slightly elevated, eczematous border, and leaving a pigmented centre. It remains localized for a long time and is usually extremely resistent to treatment, and when apparently cured frequently relapses. The itching is very severe. Duhring, although usually extremely satisfactory and complete in his descriptions of skin diseases, only refers to it as being "a severe form of tinea circinata" (tinea corporis.) In this affection, however, just as in sycosis, the clinical history is so entirely different from simple ringworm of the body, that no one without a preconceived notion about the etiological relations of eczema marginatum would ascribe the process to the trichophyton. The itching which—if present at all in ringworm, is moderate and intermittent, is severe and persistent in eczema marginatum. While ringworm patches are generally dry and scaly, eczema marginatum, as its name implies, has a decidedly eczematous aspect. Ringworm of the non-hairy parts of the body is usually easily and rapidly curable,

‡The case of parasitic sycosis recently published by Kaposi, (*Hebra & Kaposi, Hautkrankheiten, Bd.* 2, pg. 654.) raises the suspicion that the fungus may be some other than the trichophyton.

eczema marginatum, as already stated, is extremely obstinate and liable to relapse. I have seen the upper layers of the skin destroyed with pure carbolic acid, and the itching return on the same spot when the epidermis had been regenerated. In this case I made a microscopic examination, but failed to find any trace of fungus. It may be said that I was mistaken in the diagnosis, but I do not think so. Instead therefore of arranging all cases of eczema marginatum, as merely a variety of ringworm, tinea cruris, I think it more correct to consider it one of the four following conditions:

A. Simple ringworm—tinea cruris.—This is easily curable.

B. Tinea cruris, upon the seat of which eczema has become developed.

C. Eczema in which the parasitic element has become accidentally superadded, and D. simple eczema of the parts.

Such an arrangement not only reconciles differences, but is, I think, the most rational and for these reasons:

Sometimes the disease resembles ordinary ringworm and is easily curable.

At others it begins as ringworm, but becomes eczematous; again, it begins as eczema but extends with a sharply defined border; and finally it runs its whole course as an eczema. In the first three varieties the trichophyton fungus is present and may be discovered with the microscope. In the last form no fungus can be found.*

The parasitic disease of the nail, known as onychomycosis is doubtless due to the presence of the trichophyton, as besides the discovery of the parasite, it has been frequently seen to be developed in connection with ringworm upon some other part of the body. The fungus of favus—achorion schoenleinii, also sometimes infests the nails. The lemon-yellow color will suffice to distinguish the latter.

The diagnosis of tinea trichophytina is generally easily made with the microscope. Either the spores or mycelium, or both,

*The well-defined border of eczema marginatum has been considered a proof of its parasitic nature. I have very recently seen a severe case of eczema intertrigo in a young child, in which the limits between the inflamed and the healthy skin were extremely sharp. Here there could be no question of a parasite.

are present during the entire course of the disease, although at times careful search will be necessary to find them. In the early period of the affection, the mycelium is present in great profusion and perfection, while the spores are few in number. At a later period, the spores are numerous while the mycelium is broken up into short tubes containing spores here and there within their lumen. The readiest method of examining them is to place a few small scales upon a glass slide and moisten them with a drop of liquor potassæ or aq. ammoniæ, in ten or fifteen minutes they may generally be well made out.

But a few words will be necessary concerning treatment. Frictions with soft soap to remove the scales, then parasiticides, sulphurous, carbolic or boracic acids, the hyposulphites and sulphites, borax, tincture of iodine, corrosive sublimate are doubtless all good. It doesn't so much matter what particular remedy is used as how it is used. Dr. Bulkley prefers the sulphurous acid, I have usually found carbolic acid in form of carbolised oil, one part to fifteen, or ointment, to answer well, and now nearly always use it. According to my experiences, systematic epilation, which is insisted upon by all writers on the the subject—is not at all necessary. If the soap frictions are properly performed, the diseased hairs come out of themselves, so to speak, and after three or four washings the affected patch is clean. The parasiticide should be continued for some time after the entire disappearance of the disease to prevent relapses.

The question of the botanical relations of the fungus of tinea trichophytina to that of favus and tinea versicolor I shall reserve for investigation and discussion hereafter.

ELECTRICITY IN MEDICINE.

BY F. T. MILES, M. D., PROFESSOR OF ANATOMY, AND CLINICAL PROFESSOR OF DISEASES OF THE NERVOUS SYSTEM, UNIVERSITY OF MARYLAND.

[*Read, by request, before the Academy of Medicine.*]

GENTLEMEN: In bringing before you the subject of the medical uses of Electricity, I have not for my object the advancing of any novel views of my own, nor even an attempt to go into a discussion of the conflicting views of others, but simply the urging upon your attention some of its salient points, with the hope of stimulating some of you to work in this fruitful, but comparatively little cultivated field of therapeutics.

Electricity has for a very long time been employed in the treatment of disease in the most absolutely empirical manner, based upon a vague, and erroneous idea that nerve force (whatever that may be,) and Electricity were identical, and that an agent that could excite nerves, and cause muscles to contract, *must* be beneficial in all cases where nerves were diseased, or muscles paralyzed. As Wilks, in his recent work on diseases of the nervous system, has said, "for a long time the only electricians were the most notorious quacks." "It can scarcely then be wondered at that respectable medical men up to the present day held aloof from the subject of Electricity, and regarded it, at the best, as a pretty plaything for their patients." It is within comparatively a few years that the effort has been made to formulate what we know of the effects of Electricity on the human body in health and disease, and to point out in which direction future observation must be made, to gather material for filling the great gaps in our knowledge of the subtle, and obscure therapeutic workings of this agent.

Two kinds of Electricity are now very nearly exclusively used for medical purposes, viz. the Faradic, or induced, or as it is often improperly designated, the interrupted current, and the Galvanic, or chemical, or, as it is frequently called, continued current. It is of the utmost consequence in the clinical employ-

ment of Electricity to keep clearly in mind the different qualities of these two currents as we obtain them from the batteries in use for medical purposes, and their different effects upon the nervous system, muscles, and tissues of the living human body. I say the living human body, because the various effects of Electricity observed by experimenters on animals, especially those low in the scale, and the laws deduced from them, do not hold good in all points for electricity when applied in the manner usually employed in medicine.

The Galvanic current, generated by chemical action of a fluid on two different metals, or carbon and metal immersed in it, passes theoretically in an uninterrupted stream from the copper, carbon, or positive pole through whatever conducting substances are interposed to the zinc, or negative pole It generates heat, and effects the chemical decomposition of fluids through which it passes, the oxygen accumulates at the positive pole, the hydrogen at the negative pole, this we call Electrolysis. During the passage of the galvanic current, unless it be of great strength, the muscles do not contract, the motor nerves are not excited, it is at the moment that the electrodes are applied to or removed from the body, or that we otherwise close or interrupt the circuit that the exciting effects of the circuit on nerves and muscles are seen.

The phenomena of excitation in healthy nerves and muscles may be formulated as follows:

With a weak current closing the circuit by placing the negative pole or Kathode over a nerve, or muscle (the positive pole or Anode being already in contact with some other part of the body,) causes a contraction, thus shortly expressed K. C. C. (Kathode closing contraction). If the poles be reversed in position and with the same current the circuit be closed with the anode there is no contraction. If the current be increased in intensity the poles being in their first position the K. C. C. is increased, and if we now reverse the poles, we find that upon closing the circuit with the anode no contraction is produced, but that if we *open* the circuit by removing the anode, a contraction follows expressed by A. O. C. (anode opening contraction,)

with a slight increase of the current or (sometimes with the same strength,) we have A. C. C. (anode closing contraction). If the current be still increased in strength, all the preceding contractions are increased, and we have a tetanic contraction of muscles upon closing the circuit with the Kathode, K. C. T. (Kathode closing tetanus). Thus we have, weak current *K. C. C.*, moderately strong *K. C. C. and A. O. C.*, strong current *K. C. T.*

As these laws of contraction are frequently modified in disease of the nervous system, a knowledge of them is absolutely necessary for the correct use of electricity, as a means of diaqnosis, and prognosis.

The contractions caused by closing, or opening the circuit are more vivid the greater suddenness we give to the interruption. as when we make the break in some part of the metallic conductors which lead the current from the battery to the body. If we use an arrangement by which the current is suddenly reversed while it is passing through the body, so that the Kathode, becomes the Anode, and vice versa the exciting effects on nerves, and muscles is still further increased.

The effect of the Galvanic current on the nerves of common sensation, is strongest at the negative pole, causing a sensation of pricking, or sticking which amounts, with an increase of the strength of the current, to a sensation of burning, which may become extreme.

The nerves of special sense except the olfactory are readily, and strongly excited by the galvanic current, and exhibit there specific energies. Thus we have sensations of taste, sight and hearing aroused by the excitation of these nerves with the galvanic current.

The electrolitic action of the galvanic current on the living tissues is very decided when we have caused the conductors to penetrate through the skin, (as when needles are used,) but although we may justly suppose that this action takes part in the general effects produced by galvanisation as it is usually conducted from the surface, the evidence of its effects is very obscure. We see something of it, however, in the hyperæmia, and blistering of the skin which may be produced even under conditions

unfavorable for its exhibition, as when wet electrodes are used. But from this very obscurity of the electrolitic action of galvanism, it is often what is most appealed to by the ignorant and designing, as producing beneficial results. One of the most important points to be considered in the use of the galvanic current, is its power of penetrating the tissues of the body, and thus bringing every part of the organism under its influence. This has not only been proved by direct experiment on the dead body, but we have conclusive evidence of it in the excitation of the nerves of special sense, (the galvanic flash, sound, taste,) when the electrodes are placed at a distance from them, and so the excitation must take place at their origin in the brain; or when the electrodes applied to the back produce sensations in distant distributions of spinal nerves as is sometimes seen in disease of the cord; or in the giddiness and vertigo caused by galvanizing the brain. What and how great an effect the direction of the current has upon the parts through which it flows is a subject in dispute. I can here only give my opinion that in electro-therapeutics it is the mode of applying the poles, rather than the direction of the current that demands our attention, and is most productive of therapeutic results. Another effect of the galvanic current is the alteration it produces in the excitability of nerves and muscles, in the neighborhood of the poles, the kathode increasing the excitability, the anode diminishing it. This is of great importance in the application of galvanism to diseased parts. It is to this action that we must attribute the "invigorating or refreshing" action of galvanism on exhausted nerves and muscles. Lastly in the galvanic current we have a means for acting on the vaso-motor nerves, and thus influencing the circulation, and nutrition of organs deeply situated. When we consider the very prominent part that local alterations of the circulation take in disease, being as it were the first step in the general or local departure from health, we cannot but look with great interest on an agent capable of penetrating to the vaso-motor centres, and known to exercise an influence on the nerves of the vessels whose over dilation, or contraction we assume to be the point of departure of morbid action.

The Faradic current, as the name "induced current" given to it implies, is the electricity induced in a coil of wire, B, by the passage of a current of galvanic electricity in another coil A, which B surrounds, but from which it is absolutely isolated. It is of momentary duration only, and passes in an opposite direction to the galvanic current in A. But if the galvanic current passing through the coil A be suddenly broken, then another current likewise of momentary duration, is induced in the coil B, a cur rent moreover, which has an opposite direction to the first induced current. If now the galvanic current in coil A is rapidly broken and renewed, there is produced in coil B a succession of currents of momentary duration, and passing in opposite directions, which constitute the "Secondary Current" of the Faradic apparatuses, or the current of the secondary coil. In the application of this current to the human body, we cannot speak with accuracy of a positive and negative pole, for as we have seen the current being constantly reversed the poles are constantly changing, but in as much as the current induced by opening the galvanic current in coil A is the more powerful, and produces the greatest effects, the positive and negative poles of that current are considered the positive and negative poles of the secondary current. Now in coil A through which the galvanic current is passed and broken successively, induced currents likewise arise, and these being lead off by appropriate wires may be applied to the body.

In the Faradic batteries ordinarily used for medical purposes the break is so arranged that only the current induced in coil A by the *opening* of the galvanic current is passed through the electrodes to the body, and thus it is not a succession of reversed currents, as in the applied currents of coil B. The current from coil A is the Primary current of the faradic batteries, or the 'current of the primary coil."* If within the coil A, or primary coil, a piece of soft iron is introduced it is magnetized and demagnetized at each closing, and breaking of the galvanic current,

*In most of the faradic batteries, the arrangement is such that with the induced current of the primary coil, there passes through the electrodes the galvic current generated by the cell, or cells which work the battery. This explains the fact that the Primary current of most faradic batteries can be shown to possess a slight chemical action, the result of the galvanic current which passes with it.

and contributes to the strength of the induced currents. Faradic electricity then, as it is used in medicine, is of necessity a succession of currents, it cannot be continuous, it must be interrupted. And it is in part due to this sudden interruption of the faradic current dependent on its very nature that its power of causing contractions in muscles is very great, for we have seen that it is only at the moment of closing, or opening a current of electricity that it excites the muscles to contract.

The effects of the Faradic current on the sensitive nerves of the skin is decided, causing a pricking and smarting which may rise to an almost unendurable degree, as when the metallic brush is used. The Faradic current is of high tension, but possesses but little quantity, and thus while highly exciting it has but little power of penetration, so that we must regard the brain, and spinal cord as out of reach of its direct influence, as are probably also the other deep-seated organs. The electrolytic action of the Faradic current may be considered as null,* and in regard to the activities (electrolitic, mechanical, and vaso-motor,) the sum of which has been designated "the catalytic action," if it possesses any they are extremely feeble, as compared with the Galvanic current.

To show that these differences in the two currents of electricity do not depend upon the interruption of the one current, and the continuousness of the other, we prepare a glass tube filled with a solution of iodide of potash, with which is mixed some starch water, and into the ends of which project through the closing corks two wires. If we attach to these wires the ends of the secondary spiral, and send the induced current through the contents of the tube, there is not produced the slightest effect. If now we connect the wires from the tube with the poles of the galvanic battery, and by introducing into the circuit an apparatus for breaking and closing the current, the same for instance as is used in the faradic battery, we make the interruptions as frequent as they were in the induced current, we immediately see the

*Reference here is had of course, to the Faradic current of the faradic batteries in general use for therapeutical purposes, leaving out of consideration as not of practical application, the chemical and thermal effects of the intenser induced currents of such apparatuses as the Rhumkorff coil.

electrolitic effect of the current in the blue color which is struck in the fluid in the tube, the effect of the decomposition of the iod. potass, and the action of the free iodine liberated at the positive pole, on the starch.

As a means of diagnosis, and prognosis, especially in diseases of the nervous system, the employment of electricity gives very great advantages, and indeed often cannot be dispensed with, if we desire to form an accurate opinion. I will give some of the instances in which its use is of most advantage.

We frequently meet with some cases where the patient complains of numbness, deadness, want of feeling in some part of the surface, and it may be of importance to ascertain if an impairment of sensation really exists, and in what degree. In some of these cases it is with a subjective phenomenon we have to deal there being no real anesthesia; in others anesthesia exists, but it is exaggerated, or underrated in the description given by our patient. Now we have an admirable means in the Faradic current of forming a just estimate of the condition of the sensitive nerves, by applying it in a gradually increasing intensity, until a sensation is produced, and then by comparing this degree of intensity with that required to cause a sensation in the same part in a healthy condition. In the same way we may compare the maximum intensity that can be endured by the affected part, with the maximum endurable by the same part in health. We should be particular in making the comparison of similar parts, on the patient himself if possible, or on some healthy individual, for it need hardly be said that different regions of our bodies vary in their susceptibility to the current. Again we will somtimes find that a high degree of anesthesia, or insensibility to the current exists, of which the patient was not aware, or of which he took but little note. When we consider the very great importance of this symptom of cutaneous anesthesia, as sometimes one of the earliest indication of the invasion of grave disease of the nervous system, we will not undervalue the use of Electricity, which is one of the very best means of accurately distinguishing it. Electricity is used as an accurate means of distinguishing the condition of the auditory nerve, which has a normal reaction to the Galvanic cur-

rent, similar to the reaction of motor nerves. Thus with a weak current the application of the Kathode, to the external auditory meatus causes excitation of the nerve, indicated by a momentary sensation of sound, with a stronger current a sound is also produced when the Anode is removed from the external meatus, while a still stronger current gives when the Kathode is applied, a continuous sound, analogous to the tetanic contraction of muscles when acted on by a very strong current. We thus represent the formula for the normal reaction of the acousticus with the Galvanic current gradually increased in intensity. K. C. S. (Kathode closing, sound,) K. O. (Kathode opening, no sound,) A. C. (Anode closing, no sound,) A. O. S. (Anode opening, sound). If deviation from this formula in the reaction of the auditory nerve indicates an abnormal condition of the nerve. I have not yet data sufficient to enable me to speak definitely of the use of the Galvanic current in diagnosis of affections of the optic nerve, but I believe that in discriminating between hysterical and other forms of amaurosis it will be found of great use, enabling us to estimate the excitability of the nerve by the galvanic flash.

It is in morbid conditions of motor nerves, however, that we find electricity of the greatest use as a diagnostic agent. In deciding the important point of the seat of the paralyzeing lesion, and the extent to which that lesion has impaired nerve, and muscle, and consequently the probability of recovery, it is certainly most valuable, in certain cases almost indispensable. Thus if the paralysis is cerebral, or the result of a transverse lesion of the spinal cord, severing the tract for voluntary motor impulses, but leaving the portion from which emanate the nerves going to the paralyzed muscles, intact we have for a very long time, sometimes for years, the motor nerves and muscles responding in a vigorous manner to excitation with either current.

If, however, the cause of the paralysis exists in an implication of the anterior horns of the grey matter of the spinal cord, as in infantile paralysis, and the similar affection of the adult, (acute atrophic spinal paralysis,) and as is most probable in 'lead palsy,' or if the seat of the lesion is in the nerve trunks (peripheral paralysis,) then we have a striking difference in the effects produced

by the two currents, and with the galvanic current almost always phenomena which enables us to decide approximatively as to the seat of the lesion, at least to distinguish the lesions as not cerebral, nor the result of a general myelitis, a very important point in certain cases of multiple injury involving head, trunk and extremities, and bearing directly on the prognosis. In all these supposed lesions there is in general a rapid diminution of the Faradic excitability, until a point is reached where the application of the strongest induced current will not cause the slightest contraction. There is likewise a progressive diminution of the Galvanic excitability, which may also be completely lost. Then after a longer or shorter time, the paralyzed muscles will respond by contractions to the Galvanic current alone, and only when it is applied slowly, that is without rapid interruptions, directly to the muscles themselves, the nerve trunks being unexcitable by the current. The contractions elicited under these circumstances are peculiarly slow, deliberate, and very different from the instantaneous contraction, and relaxation that takes place when we galvanize healthy nerves and muscles. This is the "degenerative reaction," ("Entartungs reactione") and is the consequence of a degeneration having taken place in the nerves and muscles. Time forbids me to detail the modifications in the conditions which this "degenerative reaction" takes place, as for example under when it is present without the loss of the faradic contractility in the paralyzed muscles &c., but as Erb has shown all these modifications have their significance in diagnosis.

Sometimes a morbid condition of the motor nerves is indicated by an increased, or diminished excitability by the Galvanic or Faradic currents. In trying to distinguish these modifications, however, we must be very cautious to compare the nerve supposed to be affected with the same nerve in health, and upon the individual himself if possible, as where the nerve of only one limb is affected, and in making this comparison, particular care should be given to an equal moisturing of the skin, as greater or less dryness of the epidermis, makes a very great difference in the facility with which the electricity passes the skin to reach the nerve under examination

Again an abnormal condition of motor nerves may show itself by the contractions of the muscles animated by it varying from the normal formula for galvanic excitation. I have at present under treatment a case where with vague sensations of uneasiness and weariness of one lower limb, which is of a dusky red, I find that there is not only very obvious increase of the electric excitability as compared with the other leg, but the anode being placed upon the genital region, and the kathode in the popliteal space, with a weak current we have K. O. C. (contraction on removing the kathode) in the muscles below the knee, while we cannot get A. O. C. (Contraction on removing the anode,) thus an inversion of the normal formula. We are assisted in the diagnosis of hysterical paralysis by the rule that while the cutaneous sensibility of the paralyzed limbs is often very much blunted, the muscles reply to the electric currents in a normal manner. But there are exceptions to this, though rare. I have seen a case of hysterical paraplegia, through the kindness of Dr. H. H. Wilson, of this city, where the strongest current of the secondary coil of a Störer's battery excited no sensation, and but very slight, and irregular contractions here and there in the muscles of the legs. The patient made a complete recovery.

A point of some diagnostic value lies in the fact that in acute myelitis we often find pain elicited by the galvanic current when applied to the part of the spine corresponding to the seat of disease in the cord. This symptom though not in itself conclusive may very much assist the diagnosis when combined with others.

[*To be concluded next month.*]

TRANSLATIONS.

(Copied from The Canadian Journal of Medical Science for February.)

SUPERACUTE PULMONARY TUBERCULOSIS.—By M. Dieulafoy. A young girl eighteen years of age, fat and fresh, presenting all the appearances of health, entered my wards at the *Hopital Temperaire* (St. Jean ward) for some trifling indisposition; she complained of palpitation of the heart and pains in the left side of the chest, she experienced the sensation of a ball rising into the throat and choking her, she was not very regular, and her appetite was capricious; upon direct examination an intercostal neuralgia was found and a chloro-anæmic bruit at the base of the heart, and in the large vessels; this was one of those mixed and ill-defined cases which partake at the same time of the characters of chlorosis and of hysteria, which are so frequent at this age.

For several days no new symptom made its appearance, then this young girl was seized, one Saturday after a bath, with shiverings and malaise which she attributed to a simple chill.

The next day, Sunday, same condition continued; but during Sunday night or Monday morning a violent oppression (dyspnœa) occurred, accompanied with cough; this oppression increased rapidly without allowing the patient a moment's rest.

The next morning, Monday, at the visiting hour, we found the young girl in a state bordering upon asphyxia, the inspirations were short and rapid, the nails and lips were purple, the cough hard and jerky, the expectoration was catarrhal, the temperature reached 39 degrees (102.2 Fahr.) and the patient, affected with terrible anxiety, kept repeating that she was going to die.

What then did this very alarming condition, suddenly supervening in the midst of the appearances of health, portend? Clinical experience said asystolism, or perhaps obliteration of the pulmonary artery by thrombosis or embolism, auscultation of the heart did not favor this view, and, besides, we had an elevation of temperature; fine diffused râles on both sides of the chest, accompanied by catarrhal expectoration and elevation of temperature, suggested the idea of a capillary bronchitis, but the almost lightning course of this capillary bronchitis was very unusual; lastly, for several reasons, there was no thinking it an attack of asthma.

The treatment employed was the following: A venesection of 300 grammes, forty dry cups to the lower extremities, two blisters upon the chest, and a sedative draught of ether and cherry-laurel water.

The patient died the following night.

At the autopsy we found both lungs congested, and riddled from top to bottom with tubercular granulations, the majority extremely small; moreover, an old cavity of the size of a small nut existed in the apex of the left lung.

This observation presents two chief points for consideration:

1 The extreme benignity of a pulmonary phthisis, doubtless of old date, having determined locally a cavity in the apex of the left lung, and having so slightly impressed the general condition, that this young girl had not complained of any of the symptoms of pulmonary tuberculosis, and presented herself to us in the freshness and embonpoint of health.

2 The almost lightning course of the acute deposit of tubercular granulations, having invaded the whole of the pulmonary parenchyma, and killed the patient by asphyxia.

Andral had observed such a case, since he says somewhere "that the rapid and simultaneous development of a large quantity of tubercle in the lungs has occasionally been announced only by a progressively increasing dyspœa, by a sort of acute asthma," (Andral, t. iv. page 359.) Graves has also mentioned it, since he speaks of *acute tuberculores asphyxia.* (Graves, tome ii. page 127.)—*La France Medicale.*

At the Société de Chirurgie, M. Guéniot read a second report relative to an observation of dystocia from vicious conformation of the pelvis, addressed by Dr. Cauvy (d'Apt.) It concerned a female assisted in her labour by a midwife who, in order to accelerate a very long labour, thought that she ought to administer a double dose of from 1½ to 2 grammes of ergot of rye. In spite of the repeated employment of the ergot the head still remained at the superior strait. A physician was called, who made three futile applications of the forceps.

When M. Cauvy reached the patient, he found the uterus in true tetanic contraction. The head was wedged into the superior strait, and presented in the form of a soft tumour in which osseous fragments were felt, resulting from fracture of the cranium, probably produced by the repeated applications of the forceps. M. Cauvy seizing the hairy scalp with his hand, made tractions which sufficed to extricate

the head and the rest of the body. But the patient, being exhausted, died twenty-four hours after her delivery.

This woman had already gone through two previous labours, the first with presentation of the breech terminated spontaneously; the second with shoulder presentation was happily terminated by version. M. Cauvy believes that he may draw from this conclusions favourable to the employment of version in preference to the application of the forceps in cases of dystocia from pelvic narrowing. M. Gueniot does not participate in this opinion, and thinks that the forceps ought to be generally preferred. In conclusion he calls attention to the serious abuse that midwives and even some physicians make of the ergot of rye in difficult labours, owing oftenest to vicious conformation of the pelvis. The ergot in these cases renders the accouchement infinitely more difficult and more fatal. We cannot too strongly set ourselves against this baneful practice. M. Lucas Championnière directed attention to the efficacy, in serious cases of dystocia with head presentation, of the employment of the cepholotribe, which, attacking the base of the cranium through the mouth, enables us to obtain an extreme reducibility of the head which singularly favours the termination of the labour.—*L' Union Medicale.*

A New Revulsive.—Dr. E. Coutivier says: Among ordinary remedies there are few which render so many services as revulsives. Sinapisms are of daily use; and flying blisters, although reserved for graver cases, have indications almost as numerous. But there are many circumstances in which the fugitive effect of a sinapism does not suffice, and in which we recoil from the employment of a blister. Our only other resources then are frictions with tartarated antimony or croton oil, and applications of thapsia. But these means present such serious inconveniences that we very often hesitate to recommend them. . . . . I have said nothing of Burgundy pitch, because its effects are almost *nil.* What is required to fulfil all indications is an agent whose effect will be at once rapid and prolonged, and which will provoke a sharp revulsion without occasioning pain or itching. Does this agent exist? Yesterday it did not exist, or at least its properties were scarcely suspected and it was not employed; but it certainly will be so in the future. This agent is pimento, or rather the extract of pimento, which M. Lardy has just made known. It combines, in fact, in the highest degree, the various conditions we have just enumerated. It acts with great rapidity, ten to thirty minutes, according

to the point of application and the delicacy of the skin. Its action is manifested at first by a sensation of heat, a slight smarting and redness. These go on increasing for about three hours, then they remain stationary, and the revulsive action is so continued as long as may be desired. Nevertheless, after twenty or twenty-four hours in the adult, eight to ten in children, it is better to remove the plaster, and put another alongside of it if it be desirable to continue the revulsion. The heat and tingling produced are painless and free from itching. . . . The extract of pimento has a beautiful red colour, identical with that of the dried fruit. Suitably incorporated in a plastic mass, and spread upon squares of paper, its application is very easy. It is unnecessary to warm it, for it adheres sufficiently to the skin ; but it is well, on parts subject to movement, to fix it with a bandage just as a blister. Moreover, its action may be augmented or moderated according to the pressure. On removal, the heat and tingling may be immediately arrested by the application of a little starch.—*L' Union Medicale.*

Nitrite of Amyl.—We take the following from an account of the work of Dr. Jvan Ermesagem on Nitrite of Amyl, in the above journal. "The author divides into four classes the diseases in which the nitrite of amyl may be used : 1st. Syncope, coma characterized by weakness of cardiac innervation, anæmia, and the venous congestion of the cerebro-spinal centres. 2nd. Diseases characterized by vascular spasm. 3rd. Spasmodic affections of voluntary and involuntary muscles, diseases characterized by extreme elevation of temperature. The nitrite of amyl is chiefly administered by inhalation. Three drops on a handkerchief will avert threatening syncope from chloroform. In sea-sickness it will succeed heroically, according to the observation of Dr. Clapham (a hundred per cent). In hemicrania, two drops will suffice to cure ; but it is especially in angina pectoris and in asthma that the best results are obtained. But its employment is contraindicated in old people, or in those presenting any vascular or cardiac lesion. It is also contra-indicated in puerperal plethora. Its use at all times demands much circumspection."—*Rivista Clinica di Bologna.*

The Liquefaction of Oxygen.—At the *Academie des Sciences* on the 24th December, M. Raoul Pictet announced that on the 22nd of December at 8 o'clock in the evening he obtained the liquefaction

of oxygen under a pressure of 320 atmosphere and at a temperature of 140 degrees below zero. There therefore now remain only hydrogen and nitrogen in the state of irreducible gases.—*L' Union Medicale.*

CURE OF EPILEPSY.—In the opinion of Kunze we possess in curare a remedy by means of which we may cure cases of epilepsy of long standing. He employs a solution of 7 grains of curare in 75 minims of water to which he adds two drops of hydrochloric acid. At intervals of about a week he injects beneath the skin 8 drops of this solution, and in various cases in which convulsions had occurred for several years he obtained a complete cure after 8 or 10 injections.—*Lo Sperimentale.*

REPORTS OF SOCIETIES.

BALTIMORE MEDICAL AND SURGICAL SOCIETY.

(Reported for the Maryland Medical Journal.)

A case which showed either the easy communicability or the autochthonous origin of scarlet fever, was related by Dr. Lynch. In Novémber '77, a man sustained a comminuted fracture of tibia and fibula of left leg. The injury was the result of a fall from an upper floor of the State Tobacco Warehouse. The limb was suspended in Smith's anterior splint; in order to obtain better extension, Coskery's splint was afterwards applied. After five weeks the man was attacked by scarlet fever of a severe form, all the characters being well marked. Albuminuria accompanied, and repeated desquamation of the skin followed the fever. No other case of scarlatina in the house, or immediate neighborhood. After recovery from the scarlet fever, the patient had an attack of pneumonia, to which he succumbed. At the post-mortem, the peritoneum was found deeply pigmented, almost black in places, showing precedent diffused peritonitis. Strange to say, however, the patient never complained of abdominal pain. The visceral and parietal layers of the peritoneum were firmly adherent to each other.

Dr. Evans related the following case: A young woman had for a week vomited everything taken into the stomach, Had formerly had similar spells; no fever. There was a noticeable depression of the

epigastrium, "as if the stomach was absent." Distinct pulsation could be felt in this region. Nothing will relieve the vomiting except morphia, and this does so only so long as the patient abstains from eating and drinking. The Doctor was disposed to ascribe the symptoms to an aneurism of the abdominal aorta.

Dr. Thos. R. Brown related a case of fracture of the skull: About the middle of December, '77, a drayman was struck upon the head by a stone, fracturing the skull. He fell from his dray, and was carried home in an unconscious condition; he recovered his consciousness during the night and next day, came to the out-patient department at the city hospital. The fractured bone was depressed, and through the cleft, the brain could be seen pulsating. There were no symptoms of cerebral disturbance. The patient was admitted to the hospital, the wound closed with sutures, and cold water dressing applied. In two weeks he was discharged well, and has so remained. The case was reported to show that energetic surgical interference is not necessary in head injuries, unless symptoms of compression are present. Drs. Lynch, Bates and Morris related cases of similar injuries, where like happy results were obtained by adopting the plan of non-interference.

Dr. Leonard had noticed in cases of cerebral congestion, and of traumatic meningitis recently under his care, considerable diurnal variations in temperature, simulating remittent fever. He had not been able to find mention of this peculiarity in any work he had consulted.

Dr. A. B. Arnold related a case which he considered one of epileptiform neuralgia, (Trousseau). A man 40 years of age, has had for 11 years left-sided facial neuralgia, particularly about the forehead and eyes, The pain is intense. The attacks come on suddenly, and last not over ten minutes; frequently not more than five. The periods of the attacks are irregular. Within the last year and a half, other symptoms have made their appearance. Attacks of acute delirium, lasting from ten to fifteen minutes, come on at irregular intervals, sometimes as often as three or four times a day, at others, not over two or three times a week. Like the paroxysms of pain, these attacks of delirium come on without warning. If the patient is engaged in conversation, he, all at once, stops speaking, bows his head, and begins humming a tune; he does not sing, does'nt articulate—merely hums. If interrupted he flies into a violent passion. This mental aberation passes off as suddenly as it came on, and the individual re-

sumes the conversation where it was interrupted. The paroxysms are all alike; the monotony is never varied. In consequence of his affection, the patient is unfitted for business. The neuropathic disposition is well marked in the patient's family. The prognosis is bad, as the disease is incurable. Dr. Arnold believes the cause to be intra-cranial.

As to treatment, nearly everything has been tried. The patient has taken "pounds" of bromide of potassium. The other bromides, belladonna, gelseminum; all the narcotics, in fact, had been tried, and seems but to aggravate the suffering. He has had tonics without avail. Hypodermic injections of morphia relieved the pain during the paroxisms, but did not prevent their occurrence. This was the only remedy relied on at present.

ABSTRACTS AND EXTRACTS

THE USE OF SALICYLATES IN TYPHOID FEVER.

The remarkable effect of salicylic acid and its salts in acute rheumatism has led to its employment in many other diseases, and the results obtained in some of these were described at the discussions which have taken place before the French societies, and to which we have directed attention. That a drug possessing such a remarkable power over the pyrexia and articular pain of one disease should exert an influence in other diseases, presenting one or both of these characteristics, is a natural expectation. It has not been wholly unrealized, although the extent to which it is useful in other diseases than acute rheumatism seems to have limits which are soon reached, and to be the subject of some discrepancy of opinion.

We remarked that M. Sée has found the salicylic treatment much more effective in subacute rheumatism than many other observers have asserted. He has also used it in chronic rheumatoid arthritis, and has found that it is very useful in the acute exacerbation of the disease. The pain is quickly removed, the swelling is soon lessened, and the muscular rigidity is diminished in a remarkable manner. To effect this, however, large doses are necessary. Gueneau de Mussy found it useful in one case of this affection, but of no service in another. The same physician had found it entirely useless in sciatica, but in acute muscular rheumatism, lumbago, etc., M. Sée had obtained very good results, all pain and stiffness being removed in two days.

Gout is another disease in which salicylate of soda has been largely used. M. Sée found that the effect is speedy diminution in the pain of acute gout, and that even in chronic gout it is useful, and produces a gradual diminution in the swellings and nodosities. The opinion was corroborated by Gueneau de Mussy and Lépine. The latter had seen remarkable effects produced in a case of saturnine gout. In gonorrhœa rheumatism and in chorea it has been found useless. Given in full doses, it has considerable power of reducing the temperature in phthisis, but, as might be expected, without any corresponding amelioration in the symptoms. Indeed, its use is not wholly without danger, for it has appeared to induce serious gastro-intestinal troubles and cerebral symptoms.

Perhaps the most important practical question connected with the employment of salicylic acid, next to its use in acute rheumatism, is its effect in typhoid fever. There is much discrepancy in the results hitherto recorded. A favorable report was given by Dr. Gueneau de Mussy, who had used it in twenty-seven cases in small doses without having a single death. He only concluded from this that in small doses the drug does no harm in the disease. M. Sée believed, however, that it was of little service, and that doses which would have an antiseptic influence on the intestine would produce irritation; but he seems to have concluded this rather from theoretical considerations than practical experience. M. Lépine concurred in its inutility. M. Oulmont had found that of ten cases in which it was employed, marked defervescence was produced in eight, but the effect was not durable. This corroborates the conclusion of Goltdammer, who found that the duration of the disease was not diminished in any of the fifty-six cases he observed. An important series of facts have been published on this point by Schröder, of St. Petersburg. In a military hospital 160 cases of typhoid were treated with salicylates, chiefly with the soda salt. Of these thirty-one were fatal, the mortality being thus 19.4 per cent., the mortality of the preceding 211 cases treated by other methods having been 14.7 per cent. The causes of death in the salicylic cases were—in four, perforation; in five, pneumonia; and in others parotitis, parotitis with œdema of the glottis, pleuro-pneumonia, and meningitis. The antifebrile action was unquestionable, but no favorable influence on the course of the disease could be observed. By small doses the pulse was rendered less frequent, but by large doses it was accelerated, and the continued use of large doses (three drachms a day) induced symp-

toms of collapse. Schröder concludes that the treatment is far inferior to that by cold baths. This is not, however, the opinion of Jahn, who has published a series of statistics of three years' treatment of typhoid on three different systems. In the first, thirty-nine cases were treated with large doses of quinine, the application of bladders of ice, and mild "water treatment." Nine patients died, six of them from the intensity of the disease. The average duration of treatment in the hospital was sixty-six days; complications were observed seven times, severe cerebral symptoms were present twenty-five times, and severe intestinal symptoms twenty-nine times, while bedsores were observed in nineteen cases. In the following year sixty-three cases were treated with quinine and an energetic "cold-bath treatment." The deaths were six, of which five were from the intensity of the disease. The average duration of treatment was fifty-three days, complications were observed in seven, severe cerebral symptoms in seven, severe intestinal symptoms in twenty-one, bedsores in seven. In the next year thirty-five cases were treated by salicylates; five grammes (about a drachm and a half) of salicylic acid were dissolved in water with an equal quantity of bicarbonate of soda, and taken as a beverage. The deaths were only three; the average duration of treatment was thirty-seven days. Complications were observed twenty-four times, severe cerebral symptoms were present in no case, severe intestinal symptoms in one only, bedsores were observed in no case; the three deaths were all from double pneumonia. The contrast between the observations of Jahn and Schröder is so great as to make it probable that the epidemics differed very much in severity and character. It would seem, from the statistics, that in the last year of the epidemic observed by Jahn, the cases were of an exceptionally mild character, and his conclusions are therefore to be received with some reserve. He believes, however, that in large doses the drug acts not only as an antipyretic, but has a "healing" effect on the typhoid process; that the antipyretic effect is shown in the remission of the cerebral symptoms; that a direct effect is produced on the digestive organs—the gastric symptoms diminish, the appetite returns, the diarrhœa is moderated or arrested; that, as a result, the prostration is diminished, and the convalescence is abreviated; that the soda salt is preferable to the acid, because it has the same curative influence, and possibly a more rapid effect, while it produces no irritation of the respiratory tract; that no concurrent effect of the salicylate was observed, except that the tendency to epistaxis appeared to be increased by its

use; that relapses were not avoided by the use of the salicylate, and it is therefore well to continue to give it in smaller doses during convalescence. A case which was brought last session before the Clinical Society by Dr. Murchison is in such striking contrast to the second of Jahn's conclusions, that it ought not to be overlooked. The case appeared to be one favorable for testing the effect of salicylate, for the pyrexia was considerable, but was unattended by diarrhœa or delirium. The effect of the drug was to reduce the temperature as rapidly as in rheumatic fever, but when the drug was discontinued the pyrexia returned. While under the influence of the salicylate the patient had violent delirium, ceasing when the drug was omitted; there was also albuminuria, and almost total suppression of urine, both passing off as the effect of the drug ceased. It is clear, however, from the result of continental experience, that the dose of the salicylate was too large. Six drachms daily were given, three times the quantity employed by Jahn. Evidently, in typhoid the doses cannot be borne which do good in acute rheumatism, and hence a single case of poisoning by the drug, such as this, has no significance with respect to the possible beneficial effect of its employment in smaller doses.

In intermittent fever the action of the salicylate is marked, but is less than that of quinine. It has been carefully tried by Rosenstien in thirteen cases. In three cases only was there a complete cure; in six cases no effect could be observed; in four cases the influence of the drug was transient, so that the administration of quinine was necessary. The dose of salicylate employed varied from a minimum of one drachm to a maximum of four drachms daily.—*Lancet*, December 8. 1877.—*Monthly Abstract*, *February* 4.

TREATMENT OF SECONDARY PUERPERAL HEMMORRHAGE.

Dr Bailly, Prof. Agrégé of the Faculty of Medicine, contributes a paper to the *Bulletin de Therapeutique* for September 30, on the efficacy of the method of treating secondary uterine hemorrhage, devised by Prof. Tarnier. By secondary hemorrhages he understands those which are produced from the second day to a month after delivery. These are generally due to a congestion of the uterus, usually spontaneous, but sometimes caused by the presence of a foreign body in cavity, too early getting up, a violent effort, or vaginal injections

injudiciously employed. Such hemorrhages are rarely dangerous, but they recur frequently and often obstinately, and cause great alarm to the patient. The ordinary measure for arresting them are far from being always successful, and are usually tedious; and, at Prof. Tarnier's suggestion, the author of this paper commenced in 1874 the trial of warm baths. The success attending the use of these has been so great that he publishes two of the cases in which he employed them. In the first of these the hemorrhage commenced only on the eighteenth day after delivery, in a woman of feeble habit of body. The uterus was enlarged and congested, and the hemorrhage, without being alarming, resisted all the usual hæmostatics during ten days. Prof. Tarnier now advised warm baths. The first of these greatly modified the discharge, and the second suspended it completely. Recurring at the end of thirty-six hours, it was definitively arrested by the third. The uterus gradually diminished in size, and at the end of a week the patient was able to get up. In the second case the hemorrhage came on only on the twenty-seventh day after delivery, the uterus being as much developed as at the third month. The liquid blood discharged was not very considerable, but it became continuous, and was accompanied by coagula. Ergot in different forms, and vinegar injections, having been tried in vain, a warm bath of half an hour at once suspended the discharge; and, on this recurring next day, a second bath completed the cure.

Athough in possession of several cases in which their efficacy proved as complete as in these two, Dr. Bailly observes that their success is not always so prompt. He has always found them less efficacious at the commencement of the hemorrhage than when this had persisted for some time; but, as they produce no inconvenience at the earlier periods, they may also be then employed concurrently with other measures. The only objection to the method that he is aware of is, that at first it shocks the prejudices and alarms the patient. They should not be resorted to prior to the tenth day after delivery, in consequence of the fatigue and danger which their application might then give rise to. Care must be taken, also, that the temperature of the water (about 34° C. or 93° Fahr.) should be rather raised than lowered, all chilling being avoided. From twenty to thirty minutes is a long enough duration to secure the general revulsion sought for; and as one bath rarely proves enough, they may be repeated daily. Prof. Tarnier was induced to try the procedure in puerperal metrorrhagia in consequence of having observed its efficacy in the hands of M.

Salgue, of Dijon, who successfully employed it in non-puerperal metrorrhagia; he adopted it for this form of hemorrhage after delivery, and has for many years recommended it. In another number of the *Bulletin* (October 30) we find an article by Dr. Constantin Paul, Professeur-Agrégé, upon the great utility of hypodermic injections of ergotine in various forms of metrorrhagia. The formula which he has employed has been—ergotine two grammes, water and glycerine of each fifteen grammes. The solution assumes the brown colour of the extract of ergot, and keeps well, not losing any of its activity in even three months after its preparation. In the fourteen cases in which he has employed this, Dr. Paul has found it succeed in almost a marvellous manner; the hemorrhage, which was always severe and often dangerous, having in all been arrested in sixteen minutes at latest, and in several much earlier. The patients were either the subjects of more or less advanced cancer of the uterus, or in the puerperal condition. The advantageous action of ergot, taken internally, on uterine hemorrhage, has been long known; but on comparing this with the effect of hypodermic injection, the latter proves of much greater value. The time required for the operation of ergot varies from a quarter of an hour to thirty-six hours; while ergotine arrests the hemorrhage in from five to ten minutes; and in hemorrhage time is everything. Not only is the action of powder of ergot less rapid than the injection, but it is also less constantly efficacious, three or four doses being sometimes required. Ergot in powder also always gives rise to colicky pains, of which the patients complain much; but this is not so with the ergotine. The injection is not very painful, and does not produce any local inflammation, sometimes only leaving a slight hyperæsthesia at the point of insertion. So employed, intolerance of ergotine has never been noted. As Prof. Gubler has already observed, it is most remarkable that while a dose of even four grammes taken by the mouth is very doubtful in its action, a dose sixty times less, given by injection, exerts so marked an effect. Certainly there is far greater discrepancy in the doses required, according to the mode of administration, than is observed with regard to most medicinal substances. In the cases related by Dr. Paul in his paper, an injection of sixty-six milligrammes of ergotine arrested the hemorrhage in from five to ten minutes.—*Med. Times and Gaz.*, Dec. 8, 1877.

THE ACTION OF HYDROCYANIC ACID ON THE BLOOD.

Drs. A. Hiller and Wagner, according to the *Lancet*, have recently undertaken an extensive series of researches on the action of hydrocyanic acid on the blood. They first examined spectroscopic behavior of the blood of the poisoned animal; secondly analyzed the gases of the blood, and thirdly, determined the amount of nitrogen excreted by the kidneys when frequently repeated doses were administered. The earlier spectroscopic researches of the blood in cyanic-acid poisoning, by Gaehtgens, Preyer, and others, seemed to show that the blood spectrum was not materially altered. Hiller and Wagner, however, examined the blood, not only on withdrawal, but in the vessels themselves of the mesentery. The conclusions at which they have arrived are—First, that the position and intensity of the absorption bands of the oxyhæmoglobin actually circulating in the vessels are precisely the same as in the blood after its withdrawal, providing the thickness of the layer is the same. Secondly, that portion of the spectrum lying between C and E cannot be investigated, because sufficient compression could not be exerted on the vessels (without disturbing the circulation) to obtain a layer of sufficient transparency. Thirdly, poisoning with hydrocyanic acid only rendered the absorption of the two oxyhæmoglobin bands feebler—that is to say, made the blood more transparent for these rays. Fourthly, the two oxyhæmoglobin bands remain visible for at least twenty-four hours, in blood abstracted from the dead body of the animal. The oxyhœmoglobin, therefore, does not disappear from the blood in consequence of hydrocyanic poisoning. It follows that death is not referable to any abstraction or driving out of oxygen, as occurs in carbonic oxide poisoning; there can be no doubt, however, that the interchange of oxygen between the blood and the tissues is interfered with, and as the introduction of fresh oxygen into the blood is lessened, the whole series of oxydizing processes are diminished, or altogether arrested. This is supported by the fact made out by Gaehtgens, that not only the absorption of oxygen, but the elimination of $CO\frac{1}{2}$, is diminished in hydrocyanic acid poisoning.

SELECTIONS.

ALIMENTATION IN SURGICAL ACCIDENTS AND DISEASES.

BY FRANK H. HAMILTON, M. D.

* * * * * *

If the food is not appropriate the patient, who receives it, will not only suffer from lack of nourishment, but also from the irritation caused by the presence of indigested, and, consequently, irritating materials. *Such attempts at alimentation will certainly increase febrile action and aggravate inflammation.*

The fact is, however, that examples are exceedingly rare in which some feeble ability to digest food does not exist; and even in these exceptional cases, a judicious selection and timely administration of certain articles seldom fails to produce an appetite, or at all events to convey to the system some nutrition. A warm, well seasoned and well cooked cup of broth, or a fraggrant cup of hot coffee and milk, will often relieve nausea and epigastric distress, assuage a colic, diminish the severity of a headache, lift the tone of the nerves suffering under shock; and the same or similar means will often abate sensibly febrile disturbance and soften the pains of inflammation. Whoever knew of harm from food under these circumstances, when carefully and judiciously administered? I am, at least, certain that for every case in which it can be shown to have done harm, twenty cases will be found in which it has done good.

Medicines—so called—are in general far inferior to a fragrant and savory cup of food, as peptic persuaders, and I have seen many patients suffering with nausea and loss of appetite, who have been speedily relieved by the mere omission of the bitter and disgusting tonics which have been forced upon their reluctant stomachs. It is true that, under the circumstances referred to, now and then good medicines do good and improve the appetite, and their occasional abuse or unskillful exhibition is

no reason why they should never be used. Nevertheless, I wish to say, very emphatically, that the abuse of medicines is more than "occasional." It is alarmingly frequent. It is a simple elementary truth, that there are many diseases and surgical injuries in which recovery takes place as speedily without medicines as with medicines; and if any medical man has not learned this, and continues to give drugs from day to day for every form and grade of human ailment, so much the worse for him and his patients.

But if men can live and recover from disease sometimes without medicine, no man can live or recover from disease without food. Organs which are maimed and struggling must have food, or they will soon cease to labor, and will die. A wound will not heal nor a bone unite without nutriment. In every human malady and surgical accident, repair and recovery wait on nutrition.

It is not improper, then, to say that as a means of restoring the sick and wounded, when both may be needed, good food is of more importance than good medicine. Large armies have always suffered more from a deficient supply of proper food than from a deficient supply of proper medicines.

One conclusion to which my statement of facts and process of reasoning leads me is that hospitals and dispensaries ought to have the means and appliances for supplying to the sick, infirm, and maimed who come to them for help, not only medicines and skilled medical and surgical services, but also an abundance of nutritious food; indeed, that the question of food ought to be the first, where it is generally the last consideration.

There is an impression among many laymen, who have the charge of hospitals, that "extras," including eggs, milk, etc., with the services of the "diet kitchen," ought to be reserved for the few who are very seriously ill, and that all the slightly ill or convalescent should be content with the "ordinary" diet of the hospital, which is seldom very attractive to even a sound stomach. Those who have had experience in the United States army hospitals know that this was never the theory or practice of these hospitals; but that all of the regular rations were commuted, and with the money thus obtained nothing but what might be termed "extras" were purchased.

If a man is able to eat hard-tack and salt pork, or tough beef and unsavory soups, he is able, generally, to go to work, and ought not to remain in the hospital. Though well in other respects, and detained only because his broken limb is not thoroughly repaired, it does not follow that he can eat and digest what he could easily master when working out of doors, and carrying brick-hods to the top of five story buildings. If it is an object to get these men speedily out of the hospital, and thus save the tax-payers; if it is desirable to restore them soon to their families, of whom they may be the sole support, then it will be necessary to give them food that will encourage an appetite and be easily digested by a stomach weakened by long confinement, sicknes, and anxiety. They must be treated in this respect in the hospitals, as we—you and I—are treated at home, where the utmost care is taken to see that our food is suitable and appetizing; where, although we may have ceased to take medicine, so long as we find ourselves unable to return to our usual outdoor duties, we are fed only upon "extras." These same poor people, inmates of the hospitals, if they were at home, in their own humble apartments, would be fed better, so far as the quality and mode of preparing the food is concerned, than they are in most public hospitals. No pains are spared, generally, to furnish the poor all the medicine they need; but what they want most, and get the least, is good food.

The medicines and liquors dispensed at Bellevue Hospital during the six months ending July 1, 1877, cost $7, 750; and for all the charities and prisons under the charge of the Commissioners of Public Charities and Correction, these two articles cost, for the year 1876, $40, 892; about one-fourth of which, the apothecary informed me, was for liquors; leaving a balance of about $32, 200 as having been expended for other medicines than stimulating liquors. Possibly a much larger sum has been expended for "extras" in the same institutions. Upon this point I am not informed, but my long connection with this, and other civil hospitals, enables me to say that it is generally more difficult to obtain proper food, and a supply sufficient for the demand, than it is to obtain good medicines and in sufficient quantity.

In these remarks there is no imputation upon those excellent and humane gentlemen who are in charge of these institutions. In my opinion we are alone responsible for this state of facts, inasmuch as we have hitherto failed to urge upon them and the public the greater importance of nutriment and the comparatively less importance of medicine

Some intelligent men and women, not of our profession, have seen the want before we have, and they have established in various parts of the city diet kitchens, to supply the very want of which I am speaking, and which are properly made subsidiary to the dispensaries. There ought to be one immediately connected with every dispensary, and in the same building as the drug store now is. Indeed, I would be glad to see one-half of the drug stores, and all of the liquor stores converted into diet kitchens. I am not quite certain that they need all to be eleëmosynary in their character. It is possible they might, some of them, be self-sustaining. They will not have to be taxed like liquor shops, to pay for the crime and pauperism they create—nor will they kill as many people by accidental overdosing as do drug shops, not to speak of the deaths from overdosing caused by the prescriptions of illiterate and careless doctors. Those who have them in charge will not require a very long apprenticeship, and need know nothing of Latin.

Very few of their materials will have to be imported, and they will require very little advertising, so that all in all these diet kitchens can be run very cheaply.

You will not consider it out of place, I trust, if I read to you the opinions of a professional athlete, Mr. J. M. Laffin, as reported in one of our morning papers—the *Herald* of October, 21, 1877. He is speaking upon the subject of diet in training.

"In the first place, there are at the present day many young men who are preparing or training for athletic pastimes or pursuits who naturally apply for instruction as to diet to some professional athlete, who gives them the stereotyped advice: 'Eat plenty of rare meat.' Now this advice would be all well enough, perhaps, if the stomach of the one asking advice was as strong as that of the one giving the advice; but it is not, of course, and so, as it

requires a great deal of tone and strength in the stomach to digest rare meat, the beginner in athletics finds himself unable to digest the rare meat he eats.

"Then in the second place, nothing is well digested in the stomach against which the palate revolts. In many instances—myself, for example at first—the taste of very rare meat is very unpalatable indeed, and to overcome this difficulty, recourse is had to all sorts of spices and condiments to render it more pleasant. Most spices and condiments are pernicious in the long run to digestion, and so rare meat, eaten under these conditions, becomes positively injurious.

"Meat ought to be neither rare nor what is called well done, but medium, so as to be palatable without spices, etc., while at the same time it retains a large share of its natural juices.

"More harm has probably been caused by this notion of rare, underdone, bloody meat being unwholesome, than by any other idea on the whole subject, and the very first thing, young men, especially young men luxuriously nurtured, who take a personal interest in athletics, should do is to abjure this notion altogether."

In these opinions I fully concur, and if Mr. Laffin's opinions are sound in reference to the eating of raw and highly seasoned meats by those who are in health, it is quite certain that this, to civilized palates, disgusting and overseasoned food is unsuitable for the sick, and it would be well if medical men would give attention to the common sense and practical remarks of this gentleman.—*Hospital Gazette.*

EDITORIAL.

PHYSICIANS AND PRIVILEGED COMMUNICATIONS.—In the Senate of Maryland, on February 26th, a Memorial was presented, from the Medical and Chirurgical Faculty of Maryland, for the passage of a law justifying medical practitioners for refusing testimony in the courts as to disclosures by their patients.

Confidential communications should be held sacred of all men and it seems a travesty on law and justice that lawyers, *alone*, should be protected in professional communications.

Dr. Christopher Johnston, in his address before the last meeting of the Medical and Chirurgical Faculty, says: "By the nature of our calling we are often obliged, in the strict confidence of professional relation, to become the repository of communications of the gravest character, the divulgence of which might compromise reputation and personal safety, or destroy the peace of families; and yet they are made or may be uttered solely with a view to aid us in the comprehension and treatment of cases. As the law now stands in Maryland the "medical person" so confided in has no protection in the law; nay more, even if the judge choose to overlook the refusal to appear, the doctor, like any other witness, may be prosecuted for damage sustained by the party calling him if it can be shown that by the withholding of testimony the party's interests had suffered."

We have no doubt the Memorial presents the matter in a clear light, and we trust the Legislature will give it full consideration, and accord the profession a modicum of the protection guaranteed in other states.

Another Enlargement.—On the first day of May next, the beginning of the Third Volume, the Maryland Medical Journal will again be enlarged, by the addition of thirty-two pages more of reading matter, to meet the constantly growing demands upon it in the rapid advance in the different branches of medicine.

It is a fact no less gratifying than true, that there is greater activity, of the professional mind, in the matter of literary development, at present than has been known for many years; and as it is our aim to keep pace with every requirement of the profession, we shall continue to enlarge, and otherwise improve the Journal, from time to time, until it shall have few equals and no superiors in this country. (N. B. —The price will always remain the same—$3. per annum in advance.)

The Duty on Quinine and Bark.—In the United States Senate, on the 15th of February, Senator White presented a petition for the Harford County Maryland Medical Society, favoring the removal of the duties imposed on crude Peruvian bark and quinine. It was referred to the Committee on Finance.

The present duty amounts almost to a total prohibition, and puts in the hands of one or two manufacturers a huge monopoly which operates particularly and painfully upon the indigent. Quinine and

bark are necessities, in nearly every state in the Union, and the profession should move, with one accord, to have the duty removed or so reduced as to bring European manufactures in competition with our own excessively high articles.

Consolidated.—Last year the College of Physicians and Surgeons bought out the Washington University, and moved to their buildings on Saratoga street. Recently a bill was passed by the Legislature consolidating the two into one corporation.

BRIEFS.

Suspension of the British and Foreign Medico-Chirurgical Review.—The suspension of the *The British and Foreign Medico-chirurgical Review and Quarterly Journal* is announced in the October number. The reason given for its discontinuance is, "that the same impatient spirit which looks for rapidly recurring issues from the secular press has spread itself among medical readers, and the acknowledgement is sadly made, that the thoughtful old quarterlies must yield to the more spirited monthlies and weeklies." It dies gracefully, after an honorable existence of thirty-eight years, during which time it has maintained a leading position in directing medical opinion and progress.—*Canada Lancet.*

Doctor's Fees.—The London *Times* continues to publish numerous letters about doctors bills. One of the M. D.'s writes:

Sir—The gist of the whole matter is that people do not like to pay the doctor at all. No peculiarity in the way of making out his account would ever atone for the fact of his sending it in. I have met somewhere the following lines, which faithfully enough express the popular feeling:

> Three faces wears the doctor; when first sought,
> An angel's; and a God's the cure half wrought;
> But when, that cur complete, he seeks his fee,
> The devil looks less terribly than he.

The Italian Government having determined that a national Pharmacopœia is a necessity, has organized a commission for its preparation, and appointed Professor Cannizaro, of the University of Rome, its president.

TABLE-SALT IN MILK FOR CHILDREN.—Dr. Q. C. Smith, of Cloverdale, conveys a valuable hint in the following note: "When cow's milk is found to disagree with hand-fed babies or small children, it may in many cases be rendered entirely wholesome to them by adding to it a small portion of table-salt; just enough to be perceptible to the taste. I have for years directed the practice of this expedient among our people, and know it to be of real value.—*Pacific Med. and Surg. Jour.*

POST PARTUM HÆMORRHAGE.—NEW METHOD OF USING PERCHLORIDE OF IRON.—Dr. Jas. Brisbane (*London Lancet*) in cases of port partum hæmorrhage applies to the bleeding surface of the uterus a sponge soaked with tincture of iron. The blood coagulates, the uterus contracts and the patient is out of immediate danger. At the following visit the sponge is found in the vagina. All the apparatus needed is a two ounce vial of tincture of iron and a sponge. In all the cases thus treated—four—the results were all that could be desired.

THERE is nothing like presence of mind. A well known surgeon was performing a difficult operation at one of the London hospitals the other day, when the unfortunate patient suddenly died. After a short interval, said the doctor to the assembled students: "I will now show you, gentlemen, how I should have completed the operation had the patient not succumbed."

A poetically inclined admirer of the sex, and the present styles of walking costumes, and the mode of carrying them remarked the other day "that the sight of a pretty girl tripping airily along, with her skirt in hand, stirred influences in his breast that set to vibrating the most harmonic notes of his nature." His friends prescribed potash.

LESIONS OF THE PANCREAS IN DIABETES.—The *Gazette des Hopitaux* states that recently M. Lancereaux laid before the *Academie de Medicine* some specimens, exhibiting extensive lesions of the pancreas in subjects of diabetes.

USE OF CAPSICUM, WITH QUINIA.—Prof. W. H. Thompson says that either capsicum, ginger, or other aromatics, combined with quinia, will diminish the amount required of the latter.

THEORY OF CONTAGION.—If contagion consists, as claimed by Tyndall, of definite particles, sometimes floating in gas, or in the air, or in the liquids we drink; and that like organic seeds in the soil, the particles multiply themselves indefinitely in suitable media, the great probability being that their disease-producing facilities are living things—not gaseous or liquid,—but solid, the treatment of disease will resolve itself sooner or later into a kind of *germicide* within and without the body—within, in the fluids and secretions of the body—without, in the noxious elements that surround it.—*President's Address, Can. Med. Ass'n.*

BALSAM FOR THE PREVENTION OF SYPHILITIC INFECTION. (*Annal de Polli.—Allg. Med. Cent.-Ztg., No.* 74, 1877).—Chloral hydrat., acid salicylic, glycerine and sulphate of soda, āā 1½ parts; aq. dest., 4 parts; spts. vini, 1 part; to be heated to 40° and thus kept for a few minutes till the complete solution of the sulphate of soda then filtered, and to have sufficient water added to keep a perfect solution. Prior to coitus the organ is to be bathed in this, which will form a light coating, and by its chloral vapor will remove all danger of infection.

ABORTIVE TREATMENT OF BUBOES.—Buboes may be prevented from suppurating and entirely removed, by promoting absorption through the aid of gentle pressure. This may be done by using an ordinary truss, and bathing frequently with Goulard's extract.

A CASE OF MALARIAL UNILATERAL HYPERIDROSIS (periodical), affecting the right upper extremity, is reported in the *St. Louis Clinical Record*, by Dr. O. V. Gardner, of Serbin, Texas. Quinine was given, and recovery speedily followed.

RECENTLY a damaging explosion occurred in a mixture ordered by a physician, of nitromuriatic acid and tincture of cardamom. Nitromuriatic acid should always be prescribed by itself.

VOMITING OF PREGNANCY.—Add thirty drops of tincture of iodine to 8 oz. of water, and give in tablespoonful doses every hour.—*Gaz. Med. di Roma.*

PICRATE OF AMMONIA, in grain doses, for the adult, is, according to Dr. J. W. Snider, of Fairland, Ill., speedily efficient in the treatment of intermittents.

THE induction of reflex action by "blowing in the ear" is said to be efficient for the removal of a foreign body in the throat, such as a piece of meat.

OBITUARY RECORD.

DR. NINIAN PINKNEY, Medical Director N. S. N., died at his residence in Easton, Md., Dec. 15th, 1877, in his sixty-seventh year. He was the son of Ninian Pinkney, the nephew of the illustrious William Pinkney and brother of Bishop Pinkney.

His education was obtained at St. John's College, from which he graduated in 1830. In January of that year he commenced the study of medicine with Dr. Edward Sparks, of Annapolis. He attended medical lectures at the University of Maryland, in 1831–32, and the following year at the Jefferson Medical College, Pa., where he graduated M. D., in April, 1833.

On the 26th March, 1834, he entered the U. S. N., as an Assistant Surgeon, and continued on active duty until retired as Medical Director with rank of Commodore in 1873.

Dr. Pinkney possesed a vigorous intellect and an active temperament, which, with his ardent love of his profession, enabled him to perform a large amount of professional work and literary labor outside of the requirements of his official duties. In 1839 he prepared and delivered a series of lectures to the medical profession and the students of the two institutions of Philadelphia, "On the Nerves of the Brain and Organs of Sense." They were published in pamphlet form the same year. In 1848 he delivered a lecture at Annapolis on the "Life and Character of Admiral Collingwood," which was also published in pamphlet. In 1849, when Asiatic cholera was attracting much attention from the profession and the statesmen of America, he prepared a lecture on the subject, giving a graphic history of its rise in India and

its simultaneous importation into Europe and America. This lecture was delivered by request in several cities, and was opertune and appreciated by the profession. In 1854 he delivered a lecture, by request of the Maryland Legislature, on the subject of the "Home and Foreign Policy of the Government of the United States." This paper was published by the Maryland Legislature. This year he also delivered the Commencement Oration at St. John's College, and made the Presentation Address at the Naval Academy, by request of the Secretary of the Navy, on the occasion of the Commodore Perry's presenting the flag that had been raised on the soil of Japan. He delivered an oration before the Society of St. John's College in 1873, and lectured in Easton and Centerville, Md., on "Public Hygiene," in 1875–76.

The Doctor was a member of the American Medical Association from its organization, and its records show his frequent attendance, and zeal, and ability for promoting the efficiency of the medical corps of the Navy. He was one of the Vice-Presidents in 1876. He was a member of The British Medical Association, and an honorary member of the California State Medical Society. He received the vote of thanks of the General Assembly of Maryland in 1848, for gallant and meritorious services in the Mexican war. The Honorary Degree of LL. D. was conferred upon Dr. PINKNEY by St. John's College in 1873.

The Doctor had a strong predilection for Surgery. He performed not a few of the most important operations in which he was very successful.

His last cruise was under Admiral D. D. Porter, as Fleet Surgeon of the Mississippi Squadron in 1863.

DR. HENRY REGINALD NOEL, lately of this city, died at his old home in Essex county, Virginia, after a protracted illness, on January 23, 1878, aged 42 years.

He spent three sessions at the University of Virginia, to wit, those of 1856-7, 1857-8, and 1858-9. The first session he graduated in Moral Philosophy, the second and third year he took the medical course and graduated. After receiving his degree, he came to Baltimore, remained as a Resident Physician for a year in the Baltimore City Alms House, he then opened an office in the Western section of the city. On the breaking out of the war between the states he went

South, joined the Confederate army, and was elected surgeon of the 60th Va. Regiment; subsequently he was promoted to the position of Division Surgeon of the forces under the command of General Wharton. At the close of the war he returned to Baltimore, and again settled, near Franklin Square, where he practiced medicine with success up to the time of the failure of his health in 1876, owing to which he removed to the home of his nativity in Virginia. He was elected Professor of Physiology in the Baltimore Dental College in 1867, (I think); in 1873 he was elected to the chair of Physiology and Hygiene, in the College of Physicians and Surgeons; he resigned this position owing to declining health in 1874.

He leaves a family of a wife, five boys and one girl.

DR. NOEL won many friends and admirers in this city who will sincerely mourn him. He was a true physicician, a faithful friend, and devoted husband and parent.

DR. WARREN B. SHORT, a recent graduate of medicine, and a young man of extensive popularity, and great promise, died recently, at his father's residence, in Pender County, North Carolina.

PROF. ALBERT SMITH died at Peterboro', N. H., Februray 23rd, 1878. He was among the foremost of medical instructors in this country, and was connected with Dartmouth College at the time of his death.

DR. BENJAMIN B. MILES, of this city, died on the 8th ultimo, in the 37th year of his age. He was a son of the late Gen. Dixon S. Miles, United States Army.

DR. J. E. HARRINGTON, of this city, died on the 6th ultimo, aged 26 years.

DR. L. P. YANDELL, SR., of Louisville, Ky., died February 4th, 1878, in his 73rd year.

MARYLAND
MEDICAL JOURNAL.

VOL. II. BALTIMORE, APRIL, 1878. No. 6.

ORIGINAL PAPERS.

AN ADDRESS COMMEMORATIVE OF NATHAN RYNO SMITH, M. D., LL. D., LATE PRESIDENT OF THE FACULTY OF PHYSIC AND EMERITUS PROFESSOR OF SURGERY, IN THE UNIVERSITY OF MARYLAND.

DELIVERED BEFORE THE ALUMNI ASSOCIATION, MARCH 1st, 1878.
BY S. C. CHEW, M. D., PROFESSOR OF MATERIA MEDICA AND CLINICAL MEDICINE, IN THE UNIVERSITY OF MARYLAND.

MR. PRESIDENT AND FELLOW-ALUMNI OF THE UNIVERSITY OF MARYLAND:

By the too partial judgement of some members of our association, to whose wishes I could not but assent, the duty has been committed to me of preparing for this occasion an account of the life and labors of the late distinguished ornament and acknowledged head of our profession, Dr. Nathan Ryno Smith.

When I consider the position occupied by this eminent man, in the esteem of all his colleagues and in the affections of those whose privilege it was to know him more closely than in the relations of professional usage and courtesy, I shrink from the task of endeavoring to portray a character which has stamped itself upon the minds and hearts of many here present. For I am well aware that I must inevitably come far short of that high ideal of professional excellence and of moral worth which every one in contemplating my subject has formed for himself, and by comparison with which any picture that my pen can draw, shall be indeed but a "counterfeit presentment."

A distinguished critic of our own time in entering upon the discussion of the last work of a great philosopher who in early life had devoted himself to the study of medicine, and had but recently passed away, has confessed that he felt unequal to the judicial task of pronouncing upon the labors of one in whose behalf his emotions were so enlisted that he could not trust his judgement. "All the lines of that venerable countenance are before us," he says; "all the little peculiar cadences of that voice from which scholars and statesmen loved to receive the lessons of a serene and benevolent wisdom, are in our ears." And so, in whatever relation I consider our departed chieftain, whether as a clear and perspicuous teacher, as a beneficent and successful surgeon and physician, or as a most kind and considerate friend, all the lines of his venerable countenance are before me; and instead of seeking to analyze his professional character and work, I am prompted in the spirit of the Hebrew whose master was parted from him, to say only—My father, my father.

The memories of many here can without aid supply such pictures as those to which my thoughts revert. You can recall him as he appeared so often in consultation; and who that has enjoyed the advantage of his counsels, can ever forget the courteous deference which he always showed for the opinions even of his juniors; his readiness to aid them in bearing their burdens; or that rare diagnostic skill with which he seemed to reach his conclusions almost by intuition.

In your minds' eye you can see him in the amphitheatre in the attitude of dignity and command which always belonged to him. As he illustrates and enforces his teaching, he points to the diagrams on the wall, and his wand must always be at hand, for like the magician's divining rod it seems to have some mystic connection with the exercise of his powers. Or again he is going his early morning rounds through the hospital wards, setting in clear light the leading points in the cases before him; mingling his words of instruction to the students with those of kindliness and encouragement to the sick, and often of gentle humour, if the patient chances to be a child. Such are some of the many pictures which our memories may recall.

Nathan R. Smith was born on the 21st of May 1797 in the town of Cornish, on the banks of the Connecticut river in New Hampshire, where his father Dr. Nathan Smith, afterwards Professor of Physic and Surgery in Yale College, had been for ten years engaged in the practice of his profession. Biography has often found a not unnatural interest in tracing the influences that country and climate may have exerted upon its subjects; as well as those which are due to hereditary transmission. It is no doubt of importance to inquire, in studying the life of any man, what have been the means by which his mind has been shaped for the pursuits to which it has been applied, and what share such influences have had in moulding it and giving it the bent it has taken; how far they may have favoured the course that has been followed up in after years; or on the other hand, to what degree they have been inimical to it, and needing therefore to be resisted and overcome.

The region of New England in which Nathan Smith the elder was born, and passed a large portion of his life, was in its combination of mountains, rivers and lakes, and in the austerity of its soil and climate not unlike the "Caledonia stern and wild" whence many of its original settlers emigrated, and whose character has often been stamped upon the children of its soil with an impress traceable for generations. Here too it might then have been said that

> "Its bleak hills afford
> But man and steel, the soldier and his sword."

It was a school of hard endurance, and of continual conflict with nature and with foes more savage than nature in her sternest mood. And accordingly we find that Nathan Smith at one time joined the Vermont soldiery organized to repel the Indian invasions that constantly threatened the frontiers of the state. On one occasion he narrowly escaped death from a shot fired by an Indian lying in ambush. It is not known how long he was engaged in this service; but in after life he frequently referred to the struggles and hardships of this early campaign carried on by the pioneers of civilization against the inroads of savage foes.

Besides this actual warfare, he was engaged in other pursuits incident to the time and the unsettled state of the country, which

tended to produce habits of fortitude and endurance. A portion of his time was occupied in destroying beasts of prey that infested the neighborhood of his early home, and this necessary work was often diversified by the excitements and pleasures of a hunter's life. It was the custom for parties of young men to be absent from home for many days on such expeditions. On one of these excursions it is stated that "he was left by his companions in mid winter at a distance from home with a slender stock of provisions. While waiting for their return his supplies were exhausted, and, what was more unfortunate, a sudden thaw came on which, softening the surface of the snow, then many feet in depth, rendered travelling impracticable. Here he was detained several days, subsisting entirely on the unsalted flesh of some game he had taken. By the time the impediments to travelling were removed, he was suffering, in consequence of exposure and improper food, with severe and distressing disease. With difficulty he reached the nearest house at which, and afterwards at his father's, he was for many months confined by sickness."*

Such were the schools in which we may suppose he learned his early lessons in that boldness and self-reliance which were afterwards his prominent qualities as a surgeon, and which he transmitted in as large a degree as he himself possessed them, to his son.

Leading thus a life of industry and bold adventure, he attained his twenty-fourth year, when an event occurred which turned his thoughts into a new channel, and led him to embrace the profession of medicine of which for more than forty years he was a distinguished member.

Things small in themselves have often a far reaching significance. The event referred to was his presence at a surgical operation performed by Dr. Josiah Goodhue, then the most noted surgeon in that part of New England. We know not what it was; but however trivial its nature may have been, it was of importance as determining perhaps, not only his own course in life, but that of his son, his grandsons, and possibly of generations in the descending line of

*Address by Prof. Knight of Yale College.

surgeons yet to be. Such was the impression made upon his mind by what he then witnessed, and so much were his curiosity and interest excited that he expressed to Dr. Goodhue his desire to study medicine and asked to be received in his office as a student. The aptitude and promise that he showed seem at once to have favourably impressed his future preceptor ; and after having followed the advice then given in regard to a course of preliminary study, he remained for three years under Dr. Goodhue's instruction. On completing this term of study, he began the practice of his profession at Cornish. His natural endowments aided by the vigor and industry with which he devoted himself to professional study and labor, placed him in advance of the large majority of the medical men with whom he came into competition. Throughout the provincial portions of the country medical education was then very imperfect, and professional skill and knowledge were far behind what had been attained in the larger towns. Distinction might therefore have been cheaply won in a contest with what was lower than mediocrity. But conscience and pride alike forbade Nathan Smith to seek a level only just above ignorance and pretentiousness ; and so with the desire of acquiring the principles of science as taught in the first school of learning in the country, he repaired to Harvard University, and and attended there the courses of lectures on Medicine, Surgery and Natural Philosophy.

At the end of the term he took the Degree of Bachelor of Medicine, after submitting an inaugural thesis on the 'Circulation of the Blood,' which was of such merit that it was published by direction of the Faculty. Returning then to Cornish with ampler knowledge and resources he resumed his practice. And once again in later life with the desire of fitting himself the better for a special duty that he had undertaken, he left a practice which had then become large and lucrative, and spent a year partly in London and partly in Edinburgh, to whose school the teaching of Monro and Black had given a reputation which caused it to be recognized as the fountain-head of medical knowledge,

The special occasion of this sojourn abroad was the establishment at Dartmouth College of a medical school which Dr. Smith

had himself projected, and in which he was appointed Professor of Medicine and Surgery. The ability which he here displayed as a teacher, together with his established fame as a physician and surgeon, naturally suggested his name to the authorities of Yale College, when the medical department of that seat of learning was founded in 1813. He accepted the chair to which he was invited in that institution, and delivered there an annual course of lectures on the Theory and Practice of Surgery and Physic, until his death in 1828.

I have dwelt thus at length on the chief incidents in the life of Nathan Smith the elder, because it fore-shadowed his son's career; and because it is interesting to see how the two lives viewed in connection with each other illustrate the unchecked working of the law of heredity, the free play of which is so often interfered with by various circumstances of life. Some of the qualities which go to the making of a surgeon would seem to be readily transmissible by descent; those, namely, which belong to the physical side of human nature, such as keenness of eye, celerity and ease of movement, and that ambidexterity to which Celsus gave so high a place in his summary of a surgeon's endowments. The tendency to hereditary resemblance in mental faculties may be just as strong; but possibly from the greater delicacy and more complex character of the organ which is the instrument of intellectual action, the balance and proportion of its parts may be more easily disturbed; and there is commonly seen in children a wider departure from the mental level of the parent, sometimes in the way of improvement, and sometimes of deterioration, than is the case with their physical structure. Some of you have seen the likeness of the elder Smith, and if with the recollection of the form and features there delineated, you turn to the majestic portrait of the son which stands before you to-night, you can see the same earnestness of purpose, the same enterprise without rashness, boldness tempered with caution, and self-confidence which grew out of the possession of large resources, and the knowledge that they were always ready for use.

The words which the late Prof. Nathan R. Smith, in a brief sketch, wrote of his father, might with equal truth be applied to

himself. "In the practice of surgery," he says, "Prof. Smith displayed an original and inventive mind. His friends claim for him the establishment of scientific principles, and the invention of resources in practice, which will stand as lasting monuments of a mind fertile in expedients, and unshackled by the dogmas of the schools."

It is curious and interesting to see in these words with what accuracy, while describing his father, he was unconsciously drawing a portrait of himself.

During the residence of the elder Smith at Cornish his son, the subject of these remarks, was born. In that town and in Dartmouth he passed the earlier years of a life which was to be devoted to his father's calling, and in which he was destined to win a reputation as great as that which had crowned his father's surgical career. His early education was received at Dartmouth, and in 1813 he entered Yale College as a freshman, graduating there in 1817 at the age of twenty.

After completing his academic course, and before beginning his professional studies, he spent about a year and a half in Virginia as classical tutor in the family of Mr. Thomas Turner of Fauquier County, a gentleman of worth and social eminence. To this sojourn in the south may perhaps be ascribed his first early attachment to the Southern people, and his strong interest in Southern institutions and politics, which in after life developed into the intense feeling that he manifested in the disastrous years of the decline and fall of the Southern cause. On returning from Virginia he began the study of medicine in Yale College where his father then held the chair of Physic and Surgery, and here in 1823 he received the degree of Doctor of Medicine.

A question then much discussed, which as a question is now chiefly of antiquarian interest, while its results are of immense importance, was whether the first changes in many conditions of disease, and the effects also of medicines, are wrought through the blood, or are always due to a primary impression on the nervous system. This question had not then been settled by the classical experiments of Magendie and of Brodie, and the theory of nerve propagation as against the sound physiological doctrine

of absorption was still maintained by many. It is interesting therefore to find that the young student of 1823 in his inaugural thesis in which he discussed this subject, embraced and defended the true view that has been substantiated by the labors, and reasonings of the great physiologists referred to. A few years later, in 1827, he pursued the subject further, and we find his experiments referred to by Prof. Stillé in his valuable work on Therapeutics, along with those of Magendie, Sir Everard Home and others.*

In 1824 Dr. Smith began the practice of his profession in Burlington, Vermont; and in the following year he was appointed to the professorship of Surgery and Anatomy in the University of Vermont, the medical department of which was organized mainly through his own exertions, aided however by his father, who, while still discharging the duties of his chair in Yale, spent some weeks in Burlington, as the colleague of his son.

The winter of 1825–26, he passed in Philadelphia with the view of qualifying himself the better for his position as a teacher by attending the lectures and observing the modes of instruction at the University of Pennsylvania. But events so shaped themselves that what was intended to be only a temporary sojourn, resulted in a final departure from his New England home, where he never returned to reside. Soon after going to Philadelphia he became acquainted with Dr. George McClellan, who, though not connected with the University of Pennsylvania, was well known as an able surgeon and anatomist, and gave private instruction to many pupils. This gentleman was at the time associated with other physicians in laying the foundations of the Jefferson Medical School, destined afterwards to enter into distinguished and honorable rivalry with the older University. Such was the impression made upon him and his colleagues by the ability and professional knowledge of Dr. Smith, that they invited him to unite with them in their enterprise and tendered to him the chair of Anatomy in the new school.

This position he held for two sessions, and it is interesting to note that during his incumbency he counted among his pupils

*Stille, Vol. I, p. 51.

two gentlemen who afterwards attained, and happily still live to enjoy, a world-wide reputation in their profession. One of these was the present illustrious head of American Surgery, the Coryphæus of his order, Prof. Samuel D. Gross. And some of you will remember how on that day ten years ago, when the profession in Baltimore had assembled to do honor to its chief, and to welcome him home on his return from European travel, the great surgeon of the sister city united with us in our ovation and partook in our rejoicing. As we saw them side by side, "the good, grey heads that all men knew," they seemed to be brothers, separated by no long interval of years; and no where in the world could there have been found fitter exponents than they of the learning and skill which have created the science and art of surgery. The other pupil to whom I refer was Dr. Washington L. Atlee, the distinguished ovariotomist, whose labors in the advancement of American gynæcology are everywhere held in deserved honor.

Dr. Smith's connection with the Jefferson School was not of long duration. The chair of Anatomy in the School of Medicine of the University of Maryland, became vacant by the resignation of Prof. Granville Sharp Pattison in 1827; and the position was tendered to Prof. Smith, and accepted. The advantages of the change seemed obvious. The Jefferson School was then in its infancy, and our own University, although these events occurred more than half a century ago, had been in successful operation for twenty years, and had already attained its wide celebrity throughout the south and west. And besides, the chair of surgery was apparently in near succession to that of anatomy, and when attained would be more directly in the line of advancement in professional practice; and the field for surgical ambition was then much less occupied in Baltimore than in Philadelphia. His decision was therefore made; in 1827 he came to this city to begin his duties as teacher, and was soon engaged in extensive surgical and medical practice. On the death of Prof. John B. Davidge, in 1829, Prof. Smith was at once transferred to the chair of Surgery. In Baltimore he found a congenial home; fifty years of his life were completed here, and when at the age of four-score

he was laid to rest among us, his name had been for whole lifetimes a household word throughout our State. From the Alleghanies to the Chesapeake, no one was more thoroughly in heart and feeling a son of the soil, more truly a Marylander than he.

About 1838, Professor Smith accepted an appointment to the chair of Practice of Medicine in the Transylvania University at Lexington, Kentucky, which necessitated his absence from Baltimore for about four months in the year. His residence here was however, never given up. At the close of each session of the Western School during the few years of his connection with it he returned here and resumed his professional work. Kentucky was then a western state, and the journeys to and fro were far more serious matters than they now are. This frequent travel and the establishment of another centre of influence and reputation brought him into contact with men distinguished in public life. It was in one of his sojourns in Kentucky that he became acquainted with the illustrious Clay, whom he afterwards received as a welcome and honored guest at his own house in this city. Professional engagements in Washington gave him other opportunities of meeting that distinguished man, and there also he formed an acquaintance with the great statesman of the north, Daniel Webster. I may mention here, parenthetically, for there is a moral to the story, that Prof. Smith has spoken of the very imperfect notion betrayed by Mr. Webster in conversation with him of the nature and mechanism of the circulation of the blood; while yet he showed a desire to profit by his opportunity, and repair his defective knowledge. Surely an important lesson may be derived from a fact like this; for if he, who by the consent of all was one of the most acute and widely informed men of his time, was thus unacquainted with the fundamental physiological fact upon which rational medicine rests, how little is the judgment of even the more educated among the laity to be regarded in any medical question. And yet how readily and flippantly do we often see such judgement given. Persons will generally admit their scanty knowledge of jurisprudence, and sometimes, even of theology; but how many there are ready to do battle, *a outrance*

on behalf of mesmerism, electicism and the countless *pathies* and follies which flourish only because ignorance is ever the ready victim of fraud.

It has been seen that Prof. Smith was connected for brief periods with three other schools of medicine: one in Vermont, one in Pennsylvania, and one in Kentucky. But it was in the position which he filled for nearly fifty years as Professor of Surgery in the University of Maryland, that his life-work was done; and it is in association with this school that his name will live in the annals of American Surgery. Soon after coming here he prepared his work on the Surgical Anatomy of the Arteries, which brought his name prominently before the profession; from his chair in this school he gave to surgery his Lithotome; here he invented the apparatus which he himself regarded as his chief contribution to surgical appliances, I mean, of course, his Anterior Splint; and here, as his last offering to science, he published his work on Fractures of the Lower Extremity.

When he came here he was young; reputation was still to be achieved, and his professorial appointment was no doubt an aid in obtaining work and fame. The obligation to the University which he thus incurred was however amply repaid by his steadfast efforts to advance her interests, and by the lustre which during a long course of years he reflected upon her. His success redounded to her credit; his genius and his fame have been, and will continue to be, her proud possession.

As fellow-alumni we may rightfully claim that our Alma Mater is held in honor throughout the land. Young graduates, who to-day have won your academic laurels, let it be your constant effort to maintain the reputation handed down to you from the past; to adorn the Sparta in which with other generations you have a common birth-right. Go where you may, and you will find some of your brothers of preceding years occupying positions among the foremost medical men of America. In both the Military and Naval branches of the public service, distinguished representatives of which we welcome here to-night; in the professorial chairs of other schools; and in the many responsible posts filled by trusted and experienced practitioners; in all these

spheres of duty you will encounter your fellow-graduates; and wherever you may feel the grasp of a brother's hand to welcome you, there you will find a heart in which Nathan R. Smith is held in honored and grateful remembrance.

The qualities by which he won his professional position, were such as in their aggregate constitute genius perhaps; or if there be such a thing as genius without them, be sure that they will carry their possessor further in the race than genius by itself. These qualities were great acuteness of perception, an extraordinary power of adaptation to circumstances as they might arise, promptness of action which sees what is needed to be done, and straightway does it, making "the firstlings of the heart to be the firstlings of the hand;" and above all, indomitable, untiring industry. The combination of traits that he possessed could hardly be better expressed than in a saying of Lord Tenterden about Sir Thomas Wilde, afterwards Lord Truro, that "he had industry enough to succeed without talents, and talents enough to succeed without industry." And yet with his great gifts there was about him a remarkable simplicity of character, and a transparent ingenuousness which was as incapable of affectation as of falsehood. On his face were always apparent the "*bene nota fides, et candor frontis honestæ.*"

His time was constantly occupied; for professional work came to him in large measure, both directly from those needing his services, and also through other medical men who were glad to profit by his counsels. And yet he never aimed at that overwhelming practice which robs life of all rational enjoyment, and in which the quality of the work done is but too apt to be in the inverse proportion to its quantity.

Nor was it his object to amass a large fortune, such as has often been made by men in his profession of far less abilities than his. While his work secured to him the ample means which industry applied in a large sphere always commands, and while there were many appeals made by charity to his large-hearted generosity which he was ever ready to answer; he would yet have esteemed it a debasement of skill and knowledge to make the acquisition of money the prime object of his exertions. And yet

I can imagine no higher or nobler success than that which crowned his professional life; for it was nothing less than his elevation by the willing suffrages of all his brethren to the post of leader and chief among them.

In 1867 when he had completed his seventieth year, Prof. Smith made his first and only visit to Europe for the purpose of obtaining rest and relief from the effects which the unremitting labor of a life time had begun to produce upon his vigorous constitution. Though he had no professional objects in view, but traveled only for relaxation and amusement, it was but natural that his attention should be turned to subjects which had been the chief interests of his life. He visited accordingly many of the noted European hospitals; and as his reputation had long preceded him, he received everywhere a cordial welcome from the most distinguished surgeons of Great Britain and the continent.

He returned home in October of that year, strengthened and refreshed to some degree. But painful disease and the infirmities of age soon began to press upon him, so that he was compelled to devote less attention to his professional work; but yet he did not entirely withdraw from practice until the last few months before his death. Even during this period of weakness and suffering his active mind seemed never to be idle; part of his time was occupied in office consultations; part in preparing a work on Surgery, which, had he left it far enough advanced for publication, would no doubt have been of great value, as embodying the results of his remarkable faculties of observation and his vast experience.

Professional subjects occupied a large share of his thoughts; but he was always interested in general literature; and the classic tastes which he had formed in early life proved to him a source of refined pleasure. When we consider what he loved in literature and what he achieved in science, these tastes may be regarded perhaps as a protest in behalf of a system of mental training under which the greatest minds of the Anglo-Saxon race have been moulded, and which it is too much the fashion in our day to treat as obsolete and destined to be superseded by other methods.

The books which in his latter years seemed to give him most delight, were Homer, chiefly in Lord Derby's translation, the Aeneid, and Plutarch's Lives.

And there were more important themes to which in his declining years his thoughts constantly turned.

It was a saying of the Emperor Charles the Fifth's wise Chancellor that "some space should intervene between the active business of life and its close;" "*inter negotia vitæ et supremam ejus finem oportet esse aliquid spatii.*" Well were it if such space for contemplation, such a "*senii penultima sedes,*" were always accorded; for the tumult and the toil of busy life are not favourable for calm reflection. But as the period draws on in which, as an old writer says,

> The soul's dark cottage, battered and decayed,
> Lets in new light through chinks that time has made,

then subjects which in earlier years are too often put aside, or made light of, come out in bold relief and assume their true proportions.

Prof. Smith's views on the subjects of man's immaterial being and its destinies in the future, which at one period of his life were unsettled, took afterwards a definite character, as he directed more attention to these themes. Upon these subjects I know from very many conversations with him in the past few years, that it would be his wish, *extremum munus morientis*, that the convictions of his mind should be made known to his professional brethren; and I cannot but regard it as a sacred duty to communicate them. He had looked much into the literature in which Positivism and the other forms of Agnosticism, as it has been happily termed, have been so prolific in our day; and he has told me that he found in them nothing to satisfy him. He inquired of them and found them wanting. Apart from the fact that such philosophies are ill-adapted to the higher needs of man's spiritual being, I believe that, without having given special attention to formal logic, he detected by an intuitive process as it were, the fallacies abounding in many modern works, which are erroneously supposed to represent the attitude of science itself. There is an able and laborious school of scientists, not the most intellectual how-

ever nor the most profoundly philosophic, whose greatest blemish is an intense dogmatism which demands acceptance as demonstrated truths, of what are at best only plausible but wholly unverified hypotheses.

No doubt a cautious use of the deductive method is a most valuable aid to investigation and research; but it is sometimes pushed too far, so that imagined discoveries are made to square with and lend support to a preconceived theory, not really resting upon an adequate foundation. This fault has lately received a well-merited reproof from one whose words should have weight with men of science and especially with physicians; I mean the distinguished Virchow of Berlin, whose thinking on all subjects is certainly free and unrestricted by any shackles of theologic dogma.*

Prof. Smith perceived this too prevalent error; and he saw also what is often misapprehended, that the doubting frame of mind is not in itself the highest or the final state to be attained. It is not doubting, but, as Aristotle taught, it is doubting *well*, which belongs to true philosophy.

For all his doubts and difficulties and for all the "obstinate questionings" which will arise in every thinking mind, our friend and colleague found that best solution which is offered by the Christian faith. This he accepted in its fulness. In the pain and suffering of which he had largely to partake, he found his solace and his support, not in the thought of all that he had done to allay

---

*See the speech of Prof. Virchow at the annual meeting of German Natural Philosophers and Physicians, at Munich, September 22nd, 1877, in reply to Dr. Haeckle, and the extreme position assumed by the latter upon the question of Development. The following passage is of value as showing the judgement of so able a scientist as Virchow, upon a hypothesis for which full acceptance is claimed by many biologists, although it is supported only by inferential arguments without any direct evidence: "You are aware," says Prof. Virchow, "that I am now specially pursuing the study of Anthropology. * * * * Man may stand in some connection with the animal world; but I am bound to declare that every positive advance which we have made in the province of pre-historic anthropology has actually removed us further from the proof of this connection. * * * * Every increase in our possession of the objects which furnish materials for discussion, *has removed us further from the hypothesis opounded.* We cannot teach, we cannot pronounce it to be a conquest of science that man has descended from any other animal."

This is in effect the judgement of the French Academy upon the same hypothesis; *c'est brillante, mais ce n'est pas scientifique.*

the anguish and relieve the distress of others, though he, if any one, might have felt satisfaction in such a thought, but in the one source of comfort and pardon and peace.

The disease of which he died and which, as you know, is incident to old age, had for several years been gaining ground, and was more than usually protracted by the resistance that his vigorous constitution made to its advance. But finally on the 3rd of July, 1877, a few weeks after he had completed his eightieth year, the conflict ceased, and he slept in death.

He has left behind him the record of a great surgeon, a brave and true citizen, a magnanimous gentleman. Full of years and full of honors, he rests from a life of arduous and faithful toil. Peace to his ashes: and as the welfare of our Alma Mater and the interests of her classes were dear to him, so in her halls and in the hearts of all her alumni may his name and his memory be fragrant and fresh forever.

ELECTRICITY IN MEDICINE.

BY F. T. MILES, M. D., PROFESSOR OF ANATOMY AND CLINICAL PROFESSOR OF DISEASES OF THE NERVOUS SYSTEM, UNIVERSITY OF MARYLAND.

[Continued from March Number.]

It would appear that in distinguishing between acute atrophic spinal paralysis, (infantile paralysis and the cognate affection in the adult) and Landry's acute ascending paralysis, (which is almost invariably fatal,) the faradic currents is of great value, inasmuch as the faradic contractility is very early lost in the first, while it continues up to the last moment in the last named disease.

As a therapeutic agent, there is probably no other about which such different opinions are held as Electricity. Some appear to make use of it without the slightest recognition of its known laws, and properties, as "medicine," a misterious agent vaguely "doing good," and upsetting all known laws of physics, chemistry, and physiology, to the advantage of the patient, and the doctor, a sort of pocket miracle

of easy application, not needing the common place requirements of rational medicine. Others again dogmatically assert that it is an agent of little or no practical importance, a new invention beneath the notice of the uncompromising, conservative, regular practitioner, and would relegate it to the domain where flourish Cundurango, Damiana and Mesmerism. For myself, I believe it to be an agent of great therapeutic value even with our confessedly imperfect knowledge of its application and workings, an agent moreover which especially requires to be in the hands of practitioners of medicine who with intelligent, and impartial eyes will observe its effects in disease. and record carefully their observations, who will not apply it indiscriminately in all cases, and claim every favorable turn in the disease as the result of its use, nor on the other hand be deterred from employing it, and crediting it with its beneficial effects, because they do not understand its modus operandi any more than they understand that of sulphate of quinine, or iodide of potassium. In short, to put electro-therapeutics in its proper position, we want the records of extensive, and intelligent experience, not the anecdotal accounts of unbelievable benefits from its use, nor the surly or contemptuous refusal to investigate its asserted powers.

The most universally recognized, and brilliant therapeutic effects of Electricity have been obtained by its application to motor paralyses. And indeed many seem to think, that the fact, that by electricity we can excite contractions in muscles which are withdrawn from the influence of the will, is sufficient proof that it does good, and that the causing the muscles to contract is in itself curative of a paralysis. This is a great error, and may lead to much useless, and unjustifiable employment of electricity. Thus in cerebral paralysis, hemiplegia, the motor nerves, and the muscles commonly retain their electric excitability for an indefinitely long time, and during years as lively contractions can be excited by the faradic current on the paralyzed, as on the sound side. Here then is simply a material break in the connection between the will and the sound nerves, and muscles, a break primarily in the brain, afterwards extending by a secondary degeneration to the cord. It is obvious that exciting contractions in the muscles of the paralyzed limbs can do nothing towards repairing this break on which alone the paralysis depends, and yet it is just in such cases that we find the ignorant, and the designing applying Electricity to the paralyzed parts, and amusing their patients, and exciting their hopes by causing lively contractions in the "dead" limbs. In cases of paralysis

of cerebral origin, if we are to effect anything by Electricity, it must be by applying it to the brain, and this we can accomplish only by the employment of the Galvanic current, the penetrating properties of which enable it to traverse the walls of the cranium. I have certainly obtained improvement by this treatment though not to the extent claimed by some. Thus in a case of hemiplegia, after the improvement in the use of the arm had come to a standstill for months, it again made some advance when electrization of the brain was begun.

In paralyses of spinal origin, (and my allotted time forbids my taking them up in detail,) we may fairly claim for Electricity a foremost place amongst the appropriate therapeutic agents. In the treatment of spinal paralyses we must remember that it is not only the cure of the patient that we should have in view, but that when we despair of this, it still remains to us to fight a losing battle with skill, and untiring effort, to struggle with the disease at every step, retarding as much as possible what we cannot wholly arrest. And in accomplishing this, I claim for the galvanization of the spine, most gratifying results. In the use of it we must keep in mind the rule to make its application as near as possible in loco morbi, and so place the electrodes that the diseased portion of the cord may be brought directly under the influence of the current, changing from time to time, and according to circumstances the pole that stands in the closest relation to the affected part, and being careful not to use a current too strong, nor to apply it too frequently, nor for too long a time at each application. We must be prepared to keep up the treatment for a long time, with intermissions, however, this I think a point of great importance. Although I do not believe that the Faradic current can directly reach, and affect the cord, it nevertheless has its use in the treatment of spinal paralysis when applied to muscles which show a tendency to atrophy, by improving their nutrition, and keeping them in the most favorable condition for obeying the weakened impulse sent to them by the will. In these cases much advantage may be derived from applying the faradic current to the perinæum, thus assisting to keep up the tonicity of the sphincter ani, and the muscles of the urethra, and so restraining that most dangerous complication, the involuntary, and continual dripping of the urine.

In infantile paralysis, and the similar condition in the adult (poliomyelitis,) I know of no other treatment but the electric, that holds out any hope of cure, or at least of reducing the amount of paralysis to a minimum. A grave error in the treatment of these

cases by electricity is but too frequently made, viz; the confining the treatment exclusively to the use of the faradic current applied to the paralyzed muscles. Now, as the seat of this affection may be confidently placed in the grey matter of the anterior horns, it is obvious that the rational employment of electricity will consist in its application to the spinal cord, that is galvanization of the spine, in connection with the use of faradic and galvanic electricity to the nerves and muscles. As in this affection the motor nerves and the muscles soon undergo such degenerative changes, that they become unexcitable by the faradic current, while the muscles themselves still respond to direct galvanic stimulation, (the degenerative reaction,) the galvanic current should be the one chosen also for application to the paralyzed parts. If galvanism cannot however be obtained, I certainly would recommend the use of the faradic current as a means of helping the circulation and nutrition of tissues. We may also reasonably ascribe to it an effect, through reflex influences, upon the central organs of the nervous system, though greatly inferior to that produced by galvanism.

In peripheral paralyses, whether of traumatic origin, or the result of acute disease, or the so called rheumatic paralysis, the use of Electricity is almost the only, certainly the most important means we possess for assisting the process of regeneration, in the degenerated nerves and muscles. In the "lighter," and "middle forms," when some response is made by the muscles to the faradic current, it is probably alone sufficient for the treatment, but in the grave form when only the degenerative reaction remains, or where all electric excitability is lost, it is imperative on us to employ the galvanic current, and to employ it with care, and great patience. I say with great patience, for here if any where in the treatment of diseases, both practitioner and patient are apt to be discouraged by the long delay, and slow progress of improvement, I have had a case of this kind, (a facial paralysis) under electric treatment that after more than a month of total absence of all electric excitability, first showed the faintest trace of the "degenerative reaction," which gradually increased, and to which finally, and after long continued treatment, succeeded voluntary movements, going on to almost complete recovery, only a stiffness of the lips remaining, for which he is still being treated. While giving the preference to galvanism in the treatment of the severer cases of peripheral paralysis, I would not be understood, as advising against the use of the faradic current in such cases, when it happens that it is the only kind of elec-

tricity that can be obtained. From the observations of Duchenne, and others we must concede that its use is advantageous, although it may be unable to excite the muscles to contract, even after the power of the will over them has been reacquired, a condition very frequently seen.

In Lead Palsy it has been recently so nearly demonstrated that the poison primarily affects the spinal cord, that we cannot doubt the propriety of combining with the local electrization of the affected muscles, (in which we encounter the same "degenerative reaction," which we see in infantile paralysis) galvanization of the spine. The benefit resulting from this treatment has been proven.

In Tabes Dorsalis, Locomotor ataxy, a diseased condition which we know to have its seat, in part at least, in the posterior columns of the cord, the galvanic current has been applied to the spine with great benefit, and as has been said by Erb, it has brightened the gloomy prognosis in this affection. And here it may be remarked, that one cause of this gloomy prognosis may be found in the fact that generally cases of Tabes dorsalis are not subjected to treatment until they begin to exhibit the ataxic movements, the train of symptoms which have long preceded, having been over-looked, or misinterpreted. Indeed it is by the early diagnosis, and prompt application of remedies that we may hope for more success in combatting many diseases, especially of the nervous system, now the opprobria of medicine.

Progressive muscular atrophy, which we may, I think, pretty certainly class amongst the diseases of the spinal cord, must be treated by galvanization of the spine, in conjunction with faradization of the affected muscles and the groups of muscles adjoining. Here if a cure is denied to our efforts, we may look for a retardation of the morbid process, almost an arrest of it. In this disease the application of one of the electrodes of a galvanic battery along the course of the sympathetic, the so-called "galvanization of the sympathetic," has been particularly recommended. Whatever the effects obtained by this manner of applying electricity may be (and much is claimed for it) it would seem decided by recent investigations, that they do not result from action on the sympathetic nerve, but from the influence exerted on the pneumogastric, and spinal nerves, all of which are subjected to the electric current. There appears to be little doubt however that the electrization of the neck, as it had better be designated, exerts a decided influence on the circulation in the brain. How far the power of the galvanic current to affect the brain directly and through the vasomotor nerves to alter the circulation, will prove beneficial in the treat-

ment of the insane, remains for the future to unfold, but it assuredly appears to open a fertile field for cultivation.

In Bulbar Paralysis by placing the two electrodes of the galvanic battery upon the mastoid processes, we have the seat of the lesion directly subjected to the influence of the current. Erb claims that in certain forms of this disease this treatment has, in his experience, produced decided improvement. We certainly possess no other remedy which gives us the faintest hope of amelioration.

Electricity as we might have expected a priori, is one of our very best means of treating the Vasomotor Neuroses. In Exopthalmic Goitre, Basedow's disease, galvanization of the neck, ("galvanization of the sympathetic") I have found markedly beneficial in retarding the advance of the exopthalmos, and the growth of the goitre, but especially useful in alleviating the distressing symptoms of general nervous excitability, palpitation of the heart, headache, throbbing, noises in the ears &c. Careful observation, and more extensive employment of electricity in other vasomotor diseases, for instance migraine, is much wanted to settle with some definiteness the amount of benefit to be derived from its use, and the best modes of applying it in different cases. The same may be said with regard to the general neuroses, such as Chorea, Epilepsy, Hysteria, Spinal irritation &c., in each of which competent observers have recorded instances of the beneficial results of electrization, general and local. In the first named disease, Chorea, my experience of the use of galvanism to the spine is very encouraging. The cases which seem generally to be most benefitted are those which present one or more tender points along the spine.

In muscular spasms, as Facial spasm, Writer's cramp &c., although cases occur of amelioration from the use of electricity, it must be admitted that it is neither so frequent, nor so decided as in the other forms of disease that have been spoken of. Nevertheless instances of improvement are sufficiently numerous to make it a point of duty for the practitioner to give electricity a fair trial in cases where experience shows us that nothing else holds out a hope for our patient.

In treating neuroses of the nerves of sensation the use of Electricity is almost indispensable. In all of the protean forms of neuralgia, visceral and cutaneous, next to the narcotics our best hope for relief from present suffering is in Electricity, and for curative effects there is no remedy which can be so generally relied upon. And here of the two currents galvanism occupies by very far the most important position, both as regards the power to relieve pain and the accomplishment of

permanent good. The mode in which it brings about its beneficial results is at present a matter of speculation, though it would appear probable, that it does so in the greatest measure by its electrolitic, and catalitic power. As neuralgias may be caused either by local morbid processes in the nerve trunks, or the surrounding tissues, or on the other hand by central disturbance, and disease, as in affections of the brain, and spinal cord, it is plain that it should not always be applied alone to the points where the pain is felt, but that it should be made to act upon the nervous centres also, when we believe that in them we have the cause of the neuralgia. Thus for example, in the neuralgic pains of locomotor ataxy we must combine galvanization of the spine, with galvanism to the painful regions, which may be conveniently accomplished by placing one electrode upon the back, while the other is passed over the part affected by the neuralgia. Galvanism will be found to give the best results in recent idiopathic neuralgias, rheumatic neuralgias, and such as are caused by, or complicated with neuritis But even when the affection is of an old date, or from central disease, or from a palpable organic cause, (as pressure on the nerve) the relief obtained is generally considerable, although we cannot from the nature of the case effect a cure. The general rule for the mode of application, is to place the positive pole, the anode, well wetted, upon the painful point, (the negative pole, the kathode being placed indifferently) and allow it to remain for several minutes. In some cases however the negative pole placed on the painful spot gives a better result. It should always be remembered that the sitting should not be too long (5 to 10 minutes), nor too frequent, usually at most once a day. The "galvanization of the sympathetic" has been highly recommended by some in neuralgias, especially in those about the head and face. Here the effects must be produced through reflex action, probably upon the circulation of the nerve centres.

The good effect obtained in some cases of cutaneous neuralgia by the use of the Faradic current depends it is supposed upon the counter-irritation of the skin it produces, and for this reason it is best to apply it at some distance from the affected nerve. Occasionally however its direct application is followed by relief, which may be accounted for by its action having exhausted the excitability of the nerve. Neuritis contra-indicates the use of the Faradic current. In hysterical neuralgias it is sometimes very potent for good. It is in the treatment of cutaneous anesthæsias that we obtain some of the best results from the use of the Faradic current, especially when they are caused by a

morbid condition of the terminations of the nerves. Here the current must be applied to the dry skin, in strength commensurate with the anesthæsia, by means of some such appliance as the metallic brush, or the dry carbon electrode. If the anesthæsia is of central origin, the treatment of it will of course require galvanism to the diseased centre, in conjunction with the faradic, or galvanic current to the anesthæsic region.

I have touched on the principal uses of Electricity in medicine, without having included in the outlines many diseased conditions in which its use has proved beneficial, or in which analogies would lead us to hope for advantage from its employment, such as anesthæsias, and hyperesthæsias of the organs of special sense, rheumatic affections of joints, morbid states of the stomach, spleen, generative organs, male, and female, skin diseases, etc., etc.

In conclusion, I repeat that the future of Electro-therapeutics is in the hands of the great body of intelligent medical practitioners whose duty it is to rescue it from the quack, and the fanatic, to uphold it against unreasoning prejudice, and to press it forward against the opposed vis-inertia of ignorant indifference.

REPORTS OF CASES.

A CASE OF NORMAL LABOR IN WHICH THE CHILD'S HEAD IS PREVENTED FROM PASSING BY A RING PESSARY.

BY MILLARD L. MITCHELL, M. D., BALTIMORE.

The following case, occurring in my practice lately, will probably be of interest to the profession at large and more especially the younger members. The case is interesting as showing one of the many dangers that may ensue on leaving a pessary in the vagina for any length of time unnoticed. I think it is also an additional warning to physicians, and more especially gynæcologists, to always *inform* their patients whenever it is found neccessary to introduce a pessary.

On the 26th of March 1877, about 9 P. M., I was called to see Mrs. B., æt. 28, found her in labor with her third child, pulse feeble, is greatly prostrated, bladder distended, desires to pass water but cannot.

Labor commenced at 3 A. M. of the following day at which time the waters were evacuated. the pains have been regular but of a *lancinating character*, the midwife reports no progress since 10 A. M. at which time she felt something like the child's mouth, but in her own words "it was a very big one." I drew off, by means of the catheter, with some slight trouble, a large basin of urine; administered a simple tonic, and on making a digital examination discovered a hoop like substance resting transversely in the vagina, was rather puzzled for awhile but it occurred to me that the cause of the trouble might be a pessary, and on asking her whether she had ever had one placed there, she replied no,—but, by cross questioning her, I found that immediately after a miscarriage which she had nearly a year ago, she applied to one of our well known gynæcologists for relief from an excruciating pain in the side. She also stated he made an examination and requested her to call the next day, (requiring her to use in the meantime a vaginal injection of warm water,) but she did not, having found great relief and not thinking it neccessary. *She was unaware of a pessary being placed for her relief.* She experienced no discomfort whatever, up to the time of her labor.

Immediately after the succeding pain, on making the examination, I distinctly felt the child's head receding from the circle formed by the pessary. The cause of the protracted and painful labor was evident, the pessary fixed rigidly by the contractions of the vagina, and its own elasticity acted as a bar to the passage of the child's head. Necessarily, delivery could not take place, or if so, with probably hazardous results to the mother. My duty was evident, the ring was turned and delivered, (a common Meig's ring pessary,) with but little difficulty, and in a half hour afterwards a healthy boy was delivered; no trouble afterwards, all the parts remaining intact.

The pessary was undoubtedly an assistant to conception and yet at a later period a very dangerous adjunct and not only dangerous at this later period, but throughout the whole period of pregnancy, as the number of cases where pessaries remaining for such a length of time and even for a shorter period unnoticed ulcerating, and migrating into the rectum or bladder are not infrequent, this happily did not occur in my case. It nevertheless was clearly the duty of the physician who inserted the pessary, *to have informed his patient*, and to have warned her of the evil consequences that might ensue, if she did not return, or to have given her suitable instructions, if he had intended it to remain any length of time, *but in any case to have informed her*

the pessary was there, before allowing her to go away. Prof. Thomas, in his late work on Gynæcology, gives some remarks on the danger of leaving a pessary unnoticed, and for any length of time, in the vagina. He says:

"Pessaries should be carefully watched, for they sometimes create cellulitis, peritonitis and vesico-recto, and vaginal fistulæ."— *Vide Thomas, page* 388.

Again: "While a pessary is kept in the vagina, cleanliness should be secured by daily vaginal injections, and not exceeding *two* months, removed, cleansed, and reintroduced.— *Vide Thomas, page* 388.

REPORTS OF SOCIETIES.

BALTIMORE MEDICAL ASSOCIATION.

(*Reported for the Maryland Medical Journal.*)

Society met on the evening of March 11th., with a large number of members present. After the usual routine of business the appointed subject for the evening was called.

Dr. P. C. Williams was to have read a paper on "Scarlet Fever," but stated that sufficient time had not been given to do justice to the subject; under the circumstances the doctor said that he would claim the attention of the Association for only a brief period during which he would relate an interesting case of Scarlet Fever.

The patient was a young girl, aged 4, of previous good health. On Monday morning rose at usual hour, the rain and unpleasant condition of the weather caused the mother to send for a carriage to take the girl to school; before the carriage arrived she was taken with violent headache and vomiting; the mother sent for Dr. Williams, who responded to the call at once, found the patient in the condition described previously, immediately suspected scarlet fever, prescribed for the patient and left word that he would call in a few hours.

Tuesday, saw the case again, proceeding as well as possible, the vomiting persisting, and towards night the eruption vanished. Used wet blankets, hot whiskey punches, prussic acid, and cupping on the spine.

Wednesday, patient comfortable, at night between 10 and 11 o'clock, a stripe of a purple color, made its appearance. Should have stated that he had called Prof Christopher Johnston in consultation in the morning, and when this stripe made its appearance sent for him again; they noticed a white streak on the face also, the heart beat very feeble, gave stimulants without effect, resorted to the hypodermic use of whiskey, the patient got quite comfortable. In the meantime a most offensive discharge made its appearance from the nostrils, fauces, &c., which increased towards morning.

Thursday morning, met Prof. Johnston who gave up the case as hopeless and ceased his visits. Determined to do whatever was possible to relieve the little sufferer, prescribed Salicylic Acid 10 grs. every 3 hours, mixed in a solution of Liquor Ammoniæ Acetatis. In 3 hours saw the patient and found the fetor much less, in 6 hours discharge ceased, remained all night with the case.

Friday sent for Prof. Johnston, who was much gratified at the change in the patient, who has progressed favorably since that time.

Dr. Williams, in remarking on the case, thought that the patient went through three critical periods :—

1. In disappearance of the eruption relieved by baths, cups &c.

2. Debility, and excessive prostration combatted by hypodermic injection of whiskey.

3. The suppuration and fetid discharge from nostrils and fauces, relieved by the use of salicylic acid, which Dr. Williams has used for the first time in this class of cases, and on that account could not claim it as a specific in this disease.

Dr. Gilman, expressed himself gratified at the relation of the case by Dr. Williams, and he heartily indorsed the use of salicylic acid in scarlet fever and diptheria.

Dr. J. R. Uhler said that he thought that he was the first physician who had used the hypodermic injection of whiskey in Baltimore, it occurred at the Alms House in 1866. He had used it with wonderful results. He also thought that some of the beneficial results following Dr. Williams' treatment resulted from the Liquor Ammoniæ Acetatis.

Dr. Jos. T. Smith asked Dr. Williams how the salicylic acid acted.

Dr. Williams thought that it acted directly on the fauces and inflamed surfaces and also on the blood, as it caused a very rapid disappearance of the peculiar mahogany color of the skin. Dr. Williams also expressed himself in favor of frequent and long visits to ill patients, and in many cases remaining all night, giving the medicine personally,

and said he certainly could refer to cases where his personal attention had saved the life of the patient.

On motion the subject was dropped and the Executive Committee reported that Dr. Quinan would lead at the next meeting, and Dr. I. E. Gibbons at the first meeting in April. On motion, Society adjourned.

WM. A. B. SELLMAN, M. D.,
REPORTING SECRETARY.

MEETINGS OF THE CLINICAL SOCIETY.

(Reported for the Maryland Medical Journal)

Regular meetings of the Clinical Society have been held the last month with full attendance of members who have manifested an unusual degree of interest in the proceedings.

Dr. Michael showed specimens of ankylosis of the knee and hip, from subjects brought to the dissecting room. The specimens were prepared by dividing them with a fine saw, thus beautifully showing complete ossification of the joints.

Dr. Theobald showed two foreign bodies removed from the external auditory meatus of children about 6 years old. One was a black eyed red bean, the other a coffee grain. Attempts to remove them with syringes and forceps had resulted in pushing them still further in. Dr. T. deprecated the use of forceps in such cases, but recommended a probe bent at a proper angle. By gently pushing the bean from behind it could be rolled over and over 'till taken out. An anæsthetic must be given to insure success. Dr. T. also related a case of glioma of the retina in a boy 6 years old, which was not apparent on superficial inspection, but was disclosed by the ophthalmoscope. The point of interest was the age of patient.

Dr. Tiffany called attention to the use of wire gauze introduced by him to lighten and strengthen the plaster of Paris splints. Common wire gauze such as is used for fly nets is cut into slips and placed up and down the limb on three sides. The plaster fills the meshes of the gauze and forms a hard compact mass much lighter than the common splint and of greater strength. It had been used with great success. If the gauze be not at hand a layer of iron filings dusted over the plaster before it dries, and hardens it and does not necessitate the use of so great a quantity.

Dr. Tiffany also related two cases of popliteal aneurism treated by pressure.

The first case a patient æt. 35, who five years ago had a chancre, and went through the various stages of syphilis. On the 19th September 1876, noticed swelling in his left ham with pain.

Was found to be two inches larger than right, and on the 11th, it was possible to make a diagnosis of popliteal aneurism. Two horse shoe tourniquets were applied alternately, a sea-saw motion being kept up between them as pain in the one or the other became too great. By Christmas there was great improvement. Then the tumor became larger, and flexion was made of the knee. Between the 10th and 18th February great improvement took place, and on the 22nd no pulsation could be felt while the tumor hardened.

Veratrum virid and morphia were used in sufficient quantities to lessen the pulse and pain. The aneurism was entirely cured. A noticeable point was the enlargement of all the arteries about the knee-joint, collateral circulation being thus set up which confirmed the cure.

The 2nd case was that of a very old negro who complianed of pain in his right ham. Examination showed enlargement, pulsation and aneurismal bruit. Forcible flexion was kept up 13 hours. The patient was so aged as evidently to be dying of old age, so the prognosis was unfavorable. The tumor disappeared considerably before death which occurred 3 or 4 weeks afterwards. Post mortem showed a double aneurism the upper one being entirely filled with a clot which thoroughly occluded that part of the artery, while the lower one had been ruptured and contained a clot also.

Dr. T. R. Brown related a case of popliteal aneurism treated by flexion for 18 days without success. Then digital pressure and tourniquets were tried. Under this treatment the symptoms subsided and the patient was doing well, till sudddenly after a week the knee swelled patient became delirious, and ten days after died of phlebitis.

Dr. B. also showed a specimen of malignant disease of the cheek, from a patient who was 90 years old when it first appeared. The age of patient was the point of interest, also specimens of atheromatous arteries, also two dorsal vertebræ, from the spinal column of Captain Conway, in which were imbedded a minnie ball. The Captain was shot while dredging for oysters. When admitted into the hospital, his pulse was 120, temp., 101, and he was overcome by continuous rigors. He could not move his feet, but there appeared to be hyperæsthesia of the skin. Urine retained. Post mortem showed hypostatic congestion

of lungs, innumerable abscesses of integument, and also large abscess of liver and cystitis the spleen containing pus. Patient died of pyæmia. The bullet penetrated the spinal column, on the right side between the 11th and 12th dorsal vertebræ, and the point protruded into the spinal canal injuring the cord.

Dr: Tiffany related a similar case of a sailor falling twenty four feet over a railing of a vessel on his back. The man died of pyæmia with symptoms same as in the previous case. P. M. showed no injury to the spinal column, but diffluence of the cord opposite the point struck.

Dr. Michael related a case of a soldier in the late war who was struck by a ball in the sacrum and is still living. There is paralysis of lower limbs retention of urine and recurrence of bed-sores as soon as any pressure is allowed.

Dr. Tiffany, at a later meeting in March, exhibited: 1st, Malignant disease of testicles which appeared eleven months before operation, increased to a large size, pushing aside the penis and other testicle. Another physician had tapped it twice for hydrocele. It was a small-cell sarcoma. 2nd. Caries of Ilium. There had been a small opening over the left buttock for four years. It was a question whether disease started below in the acetabulum or above and worked its way downwards. 3rd. Fracture with non-union of Scaphoid bone. Patient had died of disease, a fracture of lower arm being made out before death. Upon examination no sign of a fracture was found excepting the Scaphoid bone which was in three pieces. Fourteen years before the patient had fallen forward on his wrist and hand causing the fracture. False joints had been formed between the three pieces and the surfaces rubbed as smooth as polished ivory. 4th. Epithelioma Capitis which appeared three years before death, and increased rapidly, covering the greater part of one side of the scalp. There was no glandular enlargement elsewhere.

Dr. Coskery, a case of gangrene following burn, with occlusion of axillary artery by thrombus.

Dr. Hill a case of Typhloënteritis with perforation of vermiform appendix. Patient a German ate a large quantity of dried apples and cheese, after which was taken down with pain and cramps getting continually worse. Diagnosis made of foreign matter in appendix. P. M. showed appendix perforated and enlarged, and large abscess containing quart of pus extending as far up as diaphragm.

Dr. Atkinson a case of papillary Epithelioma occurring on thumb which he had removed with a curette. The result was astonishing,

the wound healed so quickly. The ease and delicacy with which the diseased parts were scraped away with the curette made this instrument a valuable one in all such cases.

Dr. Rohé had used the curette with the same success and extolled the results. Dr. R. also asked the society if any of the members had seen cases of leprosy in Baltimore. The disease is on the increase in the north-west and among the Chinese in California and is generally more common than it is usually thought to be. If it be contagious it becomes an important subject and he would thank any physician who would report cases to him.

Papers were read on "Ozena" by Dr. Hartman, and on "Latent" Vaginitis, by Dr. B. B. Browne.

R. B. Morison, M. D.

SELECTIONS.

APPLICATION OF CHEMISTRY IN MEDICO-LEGAL SCIENCE.

REPORTED TO THE MEDICAL SOCIETY OF VIRGINIA, 1877, BY M. G. ELLZEY, M. D. BLACKSBURG, VA.

Mr. President and Gentlemen:

If confined the most recent developments in chemical science, I should dwell upon the synthesis of organic compounds. Accurate study of the structure of molecules has developed rapid advances and brilliant results in this direction. Sanguine and enthusiastic extremists of a certain school have imagined that the day is at hand when, with materials of purely mineral origin, we may build up organisms capable of life—when men may stand forth in triumph disputing with God the title of creator. I am not a disciple of that school, nor shall I here indulge myself with these speculations, for I realize that I address an audience of the most practcal of men. I invite your attention to a practical subject—*The Application of Chemistry in Medico-Legal Science*—both in criminal jurisprudence and in laws regulating measures for the preservation of the public health.

Notwithstanding that much discredit was thrown upon this science, so intimately connected with the greatest and least affairs of common life, in connection with certain great criminal causes recently tried, and the abatement or failure to abate certain great public nuisances, yet, if you strike out chemistry from medico-legal science, it will appear that the science itself has been annihilated. *Have* we made, and are we making satisfactory progress in the solution of these great problems which so vitally concern the highest interest of modern society? The difficulty lies, not in lack of progress in scientific methods of dealing with such questions, but in the fact that all knowledge of the whole subject of medico-legal science is confined to a few so-called *experts*, many of whom are narrow specialists who command only with obscure vision a limited corner of this great and wide field. The general public—nay, even the general body of the learned professions of law and medicine, are totally lacking in capacity to judge of the merits of the questions raised in the simplest cases. According to their prejudices they array themselves for or against, and the rancor and violence of their criticism increase as the square of the *density* of their ignorance. *I myself, Sir*, have suffered the imputation of incompetency, and even of perjury, upon the witness-stand in a case involving life and death, because I testified that I had found arsenic in subnitrate of bismuth. And it was said it could not be there *because* the article was manufactured by Rosengarten & Son, of Philadelphia. I was threatened through the public prints, that my incompetency, or, worse, my perjury would be exposed, for samples of the bismuth had been submitted to the most distinguished chemists for analysis, and the result should be given to the public. Since then they have been dumb as oysters, for every chemist of character who examined the medicine found the arsenic in it. *Every* tyro in chemistry knows that when the question is submitted, does a sample of bismuth contain arsenic? that Marsh's test is capable of answering that question with a degree of simplicity and precision, approached by no other method known. In every case of this sort, are these absurdities to be repeated to the end of time, or shall the professions of law and medicine be instructed in the rudiments of medico-legal science?

Turn, for a moment, to the other great branch of the subject. Look at the operation, or rather the inoperativeness, of sanitary laws. Has any modern legislative body manifested the capacity to deal rationally with laws regulating the abatement of nuisances, quarantine and inspection? Has any governing council of any great city of

America possessed the capacity to regulate the removal of human excrements without doing violence to public decency and endangering the public health? There is no room to doubt that in most of our older and larger cities many lives are annually lost by poisons, contagions, and miasms emanating from soils reeking with excrement, and from sewage contamination of drinking water. But, let us not disguise and veil the truth by polite terms; let us distinctly recognize what we mean by this disgusting and alarming fact. We mean that the water those people have to drink is mingled with appreciable and dangerous quantities of human dung and human urine; and the demand is that the chemist shall furnish a remedy for this state of affairs. Is any man willing to drink the drippings from a water-closet, no matter what the chemist has done to it? Is it demanded of the chemist that he shall purify the earth composing the foundations of a great city which is reeking with human filth? Sir, let the engineer practice a little decency himself, and keep the filth out of the earth, the air and the water. Let him cease to poison life at its fountains, and then place the onus of remedying the mischief upon the chemist.

These evils are inseparable from the water-closet system for which modern chemistry offers a successful substitute. Why has it not been accepted? The fact is, that the utility of the teachings of medico-legal science have not been successfully impressed upon the public mind. Modern chemistry in its applications of practical life has shown that pulverized charcoal may be substituted for water in the closets with economy and complete success. I would call the attention of our neighboring city of Baltimore to this fact, for I sympathise with them in their difficulty with that foul and terrible nuisance, the *Harbor*—that stagnant sea of corruption, seething with the fœtid accumulations from an hundred thousand necessaries and cesspools—lying, as it were, in front of the main entrance to the great city, though under the optics and the olfactories of all who go out and all who come in. So concentrated in the escaping sulphurated hydrogen that every particle of white about every vessel that anchors in that harbor in the warm months of the year is blackened within a few hours, while the stench is awful and well nigh insufferable. It would be farcical if it were not so sad to hear the leading men of the community asking blandly of the chemist: "Can't you tell us (you could it you were good for anything,) how to get rid of that smell?" And to see them going down some sultry afternoon in July, when the odors were dankest, and pouring what they called "dead oil" over the surface of that horrible

tarn to destroy that smell, was, perhaps, the most solemnly ridiculous scene that was ever witnessed in America. *Think* of the demands of ignorance upon the chemist! To mix up in a stagnant pool thousands of millions of gallons of such filth, and then ask the chemist to furnish a cheap way to convert it into something sweet! But, says the city father, it is no great matter after all, to be sure; a little unpleasant in hot weather, yet we have one of the healthiest cities on the continent. An idiot playing with lucifer matches on a barrel of nitro-glycerin would probably reply, if warned of his peril, nitro-glycerin never blew him up. I tell those people that they owe it to God's Providence only that their city has not been desolated by some dire epidemic originating in the foulness of that Harbor; and if it be not remedied, as inevitably as death, it will visit them yet.

But, it will be said, what are they to do? Does your boasted science of chemistry furnish the answer? Common sense furnishes the first answer to the question. That answer the fool who runs may read: *Keep the filth out of the Harbor.* Well, how shall we dispose of it? Use charcoal in the closets; remove the product to iron retorts and distill. An increased quantity of charcoal will remain in the retorts, with the phosphates; among other products, illuminating gas and ammonia pass over, the phosphates remaining with the charcoal in the retorts. When the charcoal has been used in the closets the third time, it has become so rich in phosphates as to sell for a high price to farmers; the ammonia may be condensed in passing through an acid phosphate, and furnishes a valuable fertilizer. In Glasgow, we are informed, a joint stock company delivers the charcoal to the houses and removes the product from the closets and makes money out of the transaction; whereas, there is nothing in any way disagreeable, from the closets to the finished product. It is notable that organic matters decomposing in contact with charcoal furnish no stinking products, not because the charcoal absorbs them to be given off under changed circumstances with their unpleasant and dangerous properties unimpaired, but because the whole course of decomposition is altered and the noxious substances are not produced. Here is a cheap way of converting these very troublesome things into perfectly inodorous, harmless and salable compounds. Why don't the public avail themselves of it? The blame cannot be thrown upon the chemist.

What, then, after all, is the remedy? We must begin at the beginning. *Education* is the remedy, and the only remedy. If a tithe of the money spent in brick and mortar, (for extravagance in

building is the most absurd and useless extravagance of a vain-glorious and wasteful age)—if a tithe of the money spent for apparatus, beautiful, delicate, wonderful, but too costly for use, had been reserved for the employment of brains in developing and carrying forward and impressing upon the mind by effectual teaching this great subject, it would have been well for us all. It cannot be left to be merely glanced at in an ineffectual way by teachers of other branches in our colleges and universities, but must have its own chair fully endowed and equipped and placed in the very front rank in popular estimation, to which end it must be filled by an able and earnest teacher giving to the work his whole time and all his talents.

It might have been supposed that Johns Hopkins University—an institution so richly endowed and officered by such distinguished gentlemen—would have done justice to medico-legal science, and surrounded its chair with every facility, and given to its work the highest dignity. But they do not appear to have been aware of the importance of the subject. Johns Hopkins University has lost a great opportunity; she might have immortalized herself in the first year of her existence by dealing successfully with Jones' Falls and the Harbor Nuisance.

I would hope, if I did not know better than to hope, that our own great University would take the lead in this subject. Alas! I know that she lacks the means. I would hope, if I did not know better than to hope, that the professions of law and medicine themselves, more nearly interested than any class of the community, would endow the chair. I know that they, too, would if they could. I would hope that the State would endow the chair, but that under present circumstances I think she has no right to endow anything not vitally and absolutely necessary to the performance of her most essential functions. *I have one hope*, that some philanthropic capitalist, contemplating endowments of educational institutions, may have his attention directed to the supreme importance of medico-legal science to the highest interests of humanity, and may give his donations that direction—hoping also that Virginia's great school, in which we all take just pride, might be the recipient of the benefit and be enabled to take the lead. It is not too much to hope that public opinion may compel the more effectual teaching of this science in all places where the law and medicine were taught. But, for the great chair which is to take the lead in developing and carrying forward this subject, and impressing

it upon the public mind, the University is the only natural and proper home.

Mr. President and gentlemen, if I may appear to have wandered too far from my subject, I crave your indulgence; but I cannot think there is any direction in which chemistry can make more important practical advances than in that which in my poor way I have endeavored to point out. If I can rescue a few thousands about to be invested in brick and mortar, and a few thousands about to be expended in curious and beautiful apparatus, but as I have remarked, too costly for use, and a few thousands destined for the purchase of busts and mummies and huge ill-assorted piles of antediluvian bones, to constitute a confused and broken record without an interpreter, from which some poor fool may one day draw forth the proof that there is no God; and if I can succeed in recovering the investment of all these moneys in brains for the development of the great subject for which I am arguing, I know that I shall be a great public benefactor. I would fain hope that it might be so; and I leave the subject, Mr. President and gentlemen, with you.

ABSTRACTS AND EXTRACTS

The System of Medical Education to be Pursued in the Johns Hopkins University.—Dr. John S. Billings, of the Surgeon-General's office, lecturing recently on the system of medical education to be pursued in the Johns Hopkins University, said that whenever the science of education shall be complete it will be based upon an intimate knowledge of the complex nervous system. Some of the very best practitioners have been unable to use their mental faculties to advantage; the study of mathematics and physical science should of necessity precede that of medicine. The history of medicine shows that many skilful men were incapable of appreciating evidence. This knowledge will depend largely on a knowledge of the right use of words. Herein lies the value of the study of the languages. Logic and all other studies are requisite for the man who will teach as well as practice. The diploma of another school should not be considered equal to the baccalaureate of the University. If that cannot or will not be had, then let the student undergo an examination, but under no circumstances should the degree of M. D. be given without the

baccalaureate as a basis. Students, like electricity, take the shortest paths. It would be understood that no one could pass without matriculation. He must study chemistry, physics and the rest for three years. He should, for instance, master the general principles of biology, and other Sciences, with which every well educated young man should be familiar. One-half of his time should be spent in the laboratory. In very rare cases it may be best to put a student at once where he can see the practical operation of the sciences of medicine. Some may be taught to swim by being tossed into deep water, but the most will be drowned. In general it will be best to begin with theoretic principles. In ancient times, doctors held their authority by ceremony or tradition, and then followed the system of apprentices, the time of servitude being seven years. Then came lectures, which were followed by the tutorial system, which has drifted into a mixed method of lecturing and tutoring. This will probably be the plan in the Johns Hopkins, and the best of each will be taken. Really good lectures are of great use to students, and, indeed, of great use to the lecturer himself, for he never is really sure what he knows until he tries to teach it. It is earnestly recommended that a course of comparative medicine be a part of the second year's studies, in which the study of the diseases of animals shall be a feature. The great thing to be studied now is not so much pathological results as pathological processes. In the study of animal fluids there is the widest room of information and discovery.

A Case of Gestation After Amputation of the Cervix Uteri.—On the 17th of June, 1876, I was consulted by Mrs.——(age about 39 years; married; mother of several children) for disease of the uterus. On making an examination I found a tumor about the size of a hen's egg protruding between the labia. On further examination the tumor proved to be a hypertrophied cervix, the whole womb measuring over five inches in length. The patient had borne no children for about eight years. Congestion and irritation of the parts were reduced by local treatment, and, in consultation with Drs. Ridge and Goodell, on the 30th of June, an operation was determined upon. On the 30th of August Drs. Ridge, West and myself proceeded to operate. Ether was administered; a double ligature was then passed through the cervix, one-fourth of an inch below vaginal insertion, and tied loosely both ways so as to enable us to control hemorrhage. The

wire loop of the écraseur was adjusted about one-fourth of an inch below the ligature, and the hypertrophied cervix removed. The ligature proved very satisfactory in arresting hemorrhage. The piece of cervix removed was fully one and a half inches in length.

No untoward symptoms occurred; the patient was going about the house in three weeks' time, and health, which had so long deserted her, returned.

On the 26th of January, 1877, she ceased to menstruate. On the 25th of March I found a polypus about half an inch long protruding from the os uteri. This I twisted off with the polypus forceps. The uterus was gravid, and gestation continued. The patient became plethoric, and was bled by me in May, and by Dr. Ridge in August. Nothing further of interest occurred until the patient fell in labor, on the 3rd of October. Dr. Ridge was in attendance. The os was somewhat rigid, but dilated in about eight hours, and a fine male child, over the average size, was born. The mother is perfectly healthy.—*Dr. Benjamin in Phila. Med. Times Feb.* 16th.

Malformations of the Hymen in Relation to Legal Medicine.—Under this title Dr. Delens has published and commented upon three observations taken from his medico-legal practice. In the first, a girl, aged 15½ years, who had been outraged several years before, presented vulvitis and vaginitis, without obliteration, however, of the characteristic fringe. But the doctor remarked very justly that this integrity of the hymen, despite the outrage declared by the girl, and confirmed by the existence of the above-mentioned lesions, naturally explained itself by the conformation of the membrane, which was at least a millimeter in thickness and perforated by an opening of only a millimeter in diameter, possessing, indeed, the resistance of an imperforate hymen. Here then is a case where the expert cannot make use of the rules which ordinarily guide him and conclude from the absence of rupture that repeated violence had not been committed. The two other cases are very rare examples of double opening. In one of these the apertures have a diameter of only 2 millimeters; in the other they are 7 to 8 by 3 to 4 millimeters. Dr. Delens concludes very properly that in cases of this kind the firm band which separates the two orifices is an obstacle to defloration in proportion as the apertures are smaller. In consequence of this the expert should take this circumstance particularly into account in arranging his conclusions.—*La France Med.*, Feb. 9, 1878.

Treatment of Epilepsy.—Dr. Schultz records, in the *Berliner klinische Wochenschrift*, the case of a young man, eighteen years of age, the subject of epileptic attack, which always came on at a certain hour in the day. It mattered not what he might at that time be doing, the attack never failed. It was always preceded by an aura which lasted five or six minutes, and was followed by a sleep of several hour's duration. Quinine in large and small doses bromide of potassium, strychnine, belladonna, nitrate of silver, morphia, chloral, etc., were all administered without result; the attacks continued to recur at the fixed hour, and even occurred during sleep induced by chloral. Coming at this time under Schultz's care, he determined to test Nothnagel's treatment, and administered a teaspoonful of ordinary salt during the aura. This did not at first prevent the attack, but when on the following day a heaping tablespoonful of salt was given at the very beginning of the aura, no attack took place. For one week the dose was administered at the usual time, although no aura was perceived. At the date of Schultz's report (seven weeks afterward) no attacks had been observed, though previous to the treatment, the patient had had them for one-hundred and thirty-four days in succession.—*St. Petersburger Med. Wochenschrift*, No. 4, 1878.

Symptom Observed in Paralysis Agitans not yet Described by Authors.—M. Debove read a communication before the Medical Society of the Hospitals of Paris, which treated of a symptom noticed in a patient affected with the above mentioned trouble, and which has, so far, not been mentioned by authors. The patient in question complained of not being able to read any longer as usual. M. Debove attributed this condition to trembling of the hand and asked her to rest her book on something, but there was the same result. Then he made her read aloud before him and here is what he noticed: The patient read rapidly, but when she came to the end of a line, she stopped several instants and then commenced the following line and so on from one line to another. If a newspaper was given to her to read, she passed on to the line of the following column to return, when she had finished it, to the next line in the first column. M. Debove asked himself if there might not be here some analogy to that which is observed in the walk of these patients, for instance, propulsion and repulsion, and that he would qualify here (these two terms being improper, applied to the eye, which does not have this motion) as lateral ocular spasm.—*La France Medicale*, Feb. 13, 1878.

EDITORIAL.

At Last!—Can it be true that physicians have some rights which the courts will, and the public are bound to respect? Doctors have so long been the abused of all abusers that in many states they have resigned themselves quietly to the humiliations inflicted on them by pretended courts of justice and the indignities offered them by those who should be their defenders. The acts of courts towards them are matters of public notoriety—the course of the public is very fitly expressed by a secular cotemporary who asks: "Is it not a noticeable fact that the Doctor is the person most loudly called for in sickness, most slavishly obeyed in suffering and most gratefully thanked when the patient is relieved, and yet is the most reluctantly paid?"

We are led to these reflections by the announcement that the Supreme Court of Indiana has decided that a physician can not be compelled to give expert testimony in a case of litigation without being first paid, if he demand it, a fee commensurate with the value of the testimony. This decision was the result of an appeal from the decision of a Court of Common Pleas at Harrison, Indiana, ordering Dr. Dills, who was on the stand as a witness, to reply to a question that involved his knowledge as a physician.

College Commencements.—The annual commencements of the University of Maryland and College of Physicians and Surgeons came off on the 1st and 6th of March, respectively, with the usual degree of èclat. Over one hundred young Doctors were graduated and turned out to seek their fortunes and fame in the fields of professional labor. Many of these young gentlemen it was our good pleasure to know; to them, and their *confreres*, we would extend the hand of welcome and of good cheer and wish them God speed in the profession into which they have entered with so much earnestness and zeal. Some we know have bravely fought for the honors their alma maters have bestowed upon them, and we urge them, upon the threshold of their professional lives, never to relax in energy of purpose, but to push forward to higher attainments and grander results. A profession so extended in its range of culture and so boundless in its resources should create in the young physician an insatiable thirst for knowledge.

We extend to the graduates of 1878 our best wishes for success and honor in the walks of our noble profession.

Summer Course of Lectures.—Under the auspices of the University of Maryland, a Summer Course of Lectures will be inaugurated on the 1st day of April, to continue until the 1st day of July.

In this course daily lectures will be given on the following branches of medicine: Histology and Pathology, Topographical Anatomy, Phisiological Chemistry, Obstetrics, Diseases of the Throat and Chest and Dermatology. This course was organized three summers ago. Lectures on Dermatology and obstetrics have been added to those which previously existed.

The laboratory of the University, under Prof. W. E. A. Aikin has been arranged with a view of giving the student practical instruction in Chemical Analysis. The dissecting rooms, under the management of Dr. J. E. Michael, will be kept open so long as the weather will admit, and special instruction be given in dissections and operative surgery upon the cadaver.

Our Contributors.—The following distinguished men will contribute to the May and June numbers of the Maryland Medical Journal:—Prof. F. N. Otis, M. D., New York; Prof. Thos. Opie, M. D., Baltimore; Prof. Roberts Bartholow, M. D., Cincinnati; Dr. W. C. Dabney, Charlottesville, Va.; Prof. N. S. Davis, M. D., Chicago, and Prof. L. P. Yandell, M. D., Louisville, with many others, in this country and Europe, to be announced hereafter.

We have perfected arrangements for reports of societies and correspondence, from medical centres, and have overlooked no detail in our plans for the conduct of an acceptable medical publication.

The Medico-Chirurgical Faculty of Maryland will hold its 80th annual session at the Academy of Music in this city, beginning on Tuesday 9th instant.

The deliberations of this session will be governed by the new constitution, recently adopted, one of the provisions of which is that delegate members will hereafter pay $3, instead of $2, as heretofore.

Now is the time to Subscribe.—With the beginning of Vol. III (and the advantageous changes and improvements to be made,) is a good time for subscriptions to begin and for old ones to be renewed. We invite the support and coöperation of physicians every where and ask our friends to interest themselves and their neighbors in our behalf. The price—always—$3 00 per annum, in advance.

Our Journal.—With this issue we close Vol. 11 of the Maryland Medical Journal; with Vol. 111, the size of the Journal will be increased thirty-two pages, making it nearly double its present proportions. In addition to this increase in size, we will offer to our readers more valuable contributions and selections, which, for want of space, we have hitherto been prevented from publishing. We have secured a number of valuable original papers from distinguished medical writers throughout the country, and have obtained the coöperation of a number of able medical writers in this city. No pains will be spared to make the Maryland Medical Journal worthy of the highest position among medical publications.

The Journal was inaugurated twelve months ago under most discouraging circumstances. It was considered a venture in the field of journalism and pronounced in advance a failure. The success of medical publications in this city was held up to us as a warning against the success of this enterprise. With faith in our cause and confidence in the ability and willingness of the medical profession to sustain, by coöperation, our enterprise we embarked with a forty page sheet. The Journal will speak for itself, we have labored to improve each issue and have succeeded, beyond our most sanguine expectations, in placing it upon a solid financial basis. We have every encouragement to persevere, and will not stop short until the Maryland Medical Journal has secured a high position among scientific publications and is a worthy exponent of the medical profession in this country.

The Presbyterian Eye and Ear Charity Hospital.—This young Institution has been a success from the first day of opening, December 3rd, 1877, when the Entrance Book registered 30 patients in the Free Dispensary. The number of daily visitors have steadily increased until they reached 78 in one day. The visits paid by the poor suffering from Eye and Ear diseases during the month of December were 384. For January they increased to 810, and for February to 1092, making, for the first quarter, 2486.

The Hospital wards are very spacious and as comfortable as any in the city. The provision seems sufficient for the wants of the poor suffering from Ear and Eye diseases. It is very gratifying to learn that the financial support is ample, and that Presbyterians are taking the most lively interest in its rapid development and great usefulness, and I will make it a permanent charity as stable as the church

of the name it bears. From the known ability of its administrative officer success was to be expected. Its medical staff, consisting at present of Prof. J. J. Chisolm, M. D., Drs. W. J. McDowell and J. A. Hill, will be added to from time to time as the requirements of the Hospital demand.

Medical Teaching.—Baltimore, with its two widely known and popular medical institutions, the College of Physicians and Surgeons, and University of Maryland, affords ample opportunity to the student of medicine to become proficient in his chosen study. With ample hospital and laboratory facilities, which are equaled by few and surpassed by no city in the country, the student can obtain here a thorough and complete medical education which will fit him for practice in any sphere or in any clime.

Appointments to Hospitals.—The Faculty of the College of Physicians and Surgeons have elected Dr. Wm. Gombel resident physician to the City Hospital, with Dr. J. W. Chambers as assistant, for the ensuing year, and Dr. David Streett to their other hospital, the Maternité, on Lombard street.

Appointment.—Dr. Albert Fairfax, a resident of Fairfax, C. H., Va., since the war, in which he served with distinction, has been appointed resident physician at Ore Knob mines, Ashe county, N. C., from forty applicants. The office of the ore company is in Baltimore, where the appointment was made.

The Basin.—We copy from the *Virginia Medical Monthly* a report on "Advances in Chemistry," made to the Virginia State Medical Society, by Dr. M. G. Ellzey. It refers to the "Basin Nuisance" and suggests a remedy, and we refer it to our city fathers.

OBITUARY RECORD.

Resolutions of Respect to Dr. Henry R. Noel.—The following resolutions were adopted at the meeting of the Baltimore Medical and Surgical Society, held on February 14th, 1878, and ordered to be entered on the minutes:

Whereas,—The Medical and Surgical Society of Baltimore feels deep sorrow at the death of Dr. Henry R. Noel, one of its members, and desiring to formally express its appreciation of his exalted moral

character, and of his brilliant professional attainments, therefore, be it

Resolved,—By the Medical and Surgical Society of Baltimore, that we take this method of expressing our deep sorrow at the untimely death of our esteemed fellow-member Dr. Henry Reginald Noel; a lover of wisdom, a faithful physician, an upright man.

Resolved,—That a scroll containing a picture of the deceased, and the names of all the members of the society, be draped in mourning for a period of sixty days as an expression of that sorrow, and as a token of our appreciation of his enthusiastic devotion to medical science; of his talent and zeal in practice, and of his virtues as a man.

Resolved,—That a copy of these proceedings be transmitted to his bereaved family, and that a further copy be furnished the MARYLAND MEDICAL JOURNAL for publication.

[SIGNED.]
D. W. CATHELL, M. D.
JOHN MORRIS, M. D. } *Committee.*
ABRAM B. ARNOLD, M. D.

DR. CORNELIUS BOYLE, of Washington city, died on the 11th of March. He was born in that city November 14th, 1817. He was a son of John Boyle, an exiled Irish patriot of 1798, who, making Washington his home, was for many years chief clerk of the Navy department, and under President Jackson was acting Secretary of the Navy for more than one year. When the civil war commenced Dr. Boyle left Washington early in April and was followed by a number of his fellow-citizens. All his property there was confiscated. He was appointed Major in Stonewall Jackson's command, but was soon after appointed provost-marshal-general of the Army of Northern Virginia, and was *ex officio* on the staff of Gen. Johnston, and afterwards on that of Gen. Lee. He was nominated as a brigadier-general by Jefferson Davis, but it was withdrawn because of some legal prohibition. He continued in the office of provost-marshal-general until the close of the war, with his headquarters at Gordonsville.

After the war Dr, Boyle received a parole which forbade him to go north of the Potomac, and it virtually made him an exile from his home. After an absence of ten years Dr. Boyle was permitted to return to Washington and resume practice, and among his brethren and by the community he was held in the highest estimation as a safe and skillful physician.

Dr. Thomas D. Warren, an old and honored physician of Edenton, N. C., died on the 21st of March. He was the father of Dr. Edward Warren-Bey, who is well known in this city and is now a resident of Paris.

Dr. Wm. Brewer, a prominent physician of Annapolis, Md., was knocked down by a dog, on the 18th of March, and seriously injured, from the effects of which he died on the following day.

Dr. Frank Rice, an eminent physician of Memphis, Tenn., died of paralysis on the 21st of March. He was medical director of Cheatham's division, Polk's army corps, in the Confederate army.

Dr. Jas. A. Bizzell, a highly esteemed and honored citizen of Sampson county, N. C., died at his residence in Clinton, March 26th, aged 58 years.

Dr. John James Fitzpatrick, a native of and physician in Ireland for awhile, but for many years on the editorial staff of the New York *Herald*, died on the 24th of March.

Dr. Joseph E. Painter, acting assistant surgeon in the United States navy, died at Nagasaki, Japan, on the 15th of March. He was a native of Pennsylvania.

Dr. Thomas S. Mercer, formerly of West River, Md., died suddenly on March 11th in Washington city.

Dr. John D. McLean, for many years a practising physician in Lincolnton, N. C., died in that state in the early part of last month.

Dr. Nathaniel Dare Chesley, a prominent and popular physician, died at his residence in this city on January 23rd, in his sixty-second year.

Dr. Stephen T. Richmond, a highly respectable and successful physician of Caswell county, N. C., died at Yanceyville, in that state, on February 19th.

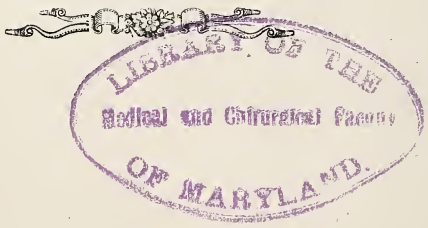
Dr. L. P. Ashmead, of Brooklyn N. Y., died in Florida on the 12th of March.

INDEX TO VOLUME II.

Page

Abstracts and Extracts.....350, 395, 478, 531
Academy of Medicine, Baltimore, Reports.....371, 428, 440
Action of Hydrocyanic Acid on the Blood..... 484
Action of Sulphate of Quinine on the Fœtus and the New Born Child..... 352
A Case of Gestation after Amputation of Cervix Uteri..... 532
A Case of Labor..... 519
Advances in Surgery..... 430
Affection of Sympathetic Nerve..... 377
Alimentation in Surgical Accidents and Diseases..... 485
American Association for Cure of Inebriates, Report..... 288
Anæsthesia, Bernard's Method..... 288
Anæsthesia in Labor, Employment,..... 391
An Address Commemorative of Nathan Ryno Smith. M. D., LLD..... 497
A New Revulsive..... 474
Antiseptic Dressing of Wounds..... 384
Appliances..... 369
Application of Chemistry in Medico-Legal Science..... 526
Baltimore Medical Association, Report..... 521
Barton, Bolling W., M. D..... 339
Bilious Attacks..... 309
Books and Pamphlets.....319, 363, 406, 451
Briefs.....313, 359, 404, 450, 491
Browne, B. B., M. D..... 421
Bunion or Deviation of Great Toe..... 390
Cardiac Hypertrophy..... 376
Certain Manifestations of Gout, Rheumatism and Rheumatoid Disease..... 294
Chew, S. C., M. D..... 497
Clinical Society, Report.....292, 342, 382, 426, 523
Contribution to the History of Gastrotomy..... 341
Consideration of Several Remedies..... 393
Deaths from Ether Inhalation.....360, 361, 390
Dilatation of the Cervix Uteri, for the Arrest of Uterine Hæmorrhage..... 301
Diphtheria..... 353
Diuretic Effect of the Blatta Orientalis in Nephritis Scarlatina..... 377
Dr. Lane..... 357
Editorial.....310, 333, 402, 447
Electricity in Medicine.....462, 497
Epistaxis..... 339
Ergot in Hemorrhage..... 300
Fiske, J. D., M. D..... 379
Forced Dilatation of the Sphincter Ani with Reference to the Treatment of Hemorrhoids..... 377
Fractures..... 394
Functions of Lymph in Cicatrization..... 402
Germ Doctrine and Septicæmia..... 350
Johnston, Christopher, M.D..... 409

Late Hemorrhage in the Puerperal Month..... 298
Laryngeal Stenosis..... 365
Liquefaction of Oxygen..... 475
Malformation of Hymen in Relation to Legal Medicine..... 533
Medical and Surgical Society of Baltimore, Report.....380, 425, 476
Medico-Chirurgical Society of Montreal..... 290
Method of Arresting Hemorrhage after Excision of Tongue..... 400
Miles, F. T., M. D.....462, 497
Mitchell, M. L., M. D..... 579
McKew, D. I., M. D..... 321
McSherry, H. C., M. D..... 365
McSherry, Richard, M. D..... 277
Mumps..... 395
Obituary Record..... 452
Physiological Properties of Bromohydric Ether..... 340
Presbyterian Eye and Ear Hospital..... 356
Rational Treatment of Dysentery..... 397
Relation of Sexual Life to Acne..... 307
Remarks on the Nature and Treatment of Strabismus..... 340
Remarks on the Naso Laryngeal Douche..... 378
Rohe, Geo. H., M. D..... 463
Salicylate of Soda for Rheumatism and Gout..... 440
Signs by which Phthisis is recognized in Early Stages without aid of Physical Examination of the Chest..... 393
Superacute Pulmonary Tuberculosis..... 472
Surgical Treatment of Croup and Diphtheria..... 409
Symptoms Observed in Paralysis Agitans not yet Described by Authors..... 534
Therapeutic Uses of Pilocarpin..... 308
Theobald, Sam'l, M. D..... 330
Therapeutic Value of Alum in Affections of the Conjunctiva..... 341
Tinea Trichophytina, or Ringworm..... 453
Treatment of Prolapse of the Rectum..... 341
Treatment of Thrush..... 348
Treatment of Secondary Puerperal Hemorrhage..... 482
Urea and Its Easy Estimation..... 321
Use of the Trephine in Depressed Fractures of the Skull..... 351
Use of Salicylates in Typhoid Fever..... 478
U. S. Marine Hospital Service..... 357
Viburnum Prunifolium as a Uterine Sedative..... 421



APRIL2013